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ART. I. *An Essay on the Principle of Population*, or a View of its past and present Effects on Human Happiness; with an Enquiry into our Prospects respecting the future Removal or Mitigation of the Evils which it occasions. A new Edition, very much enlarged. By T. R. Malthus, A. M., Fellow of Jesus College, Cambridge. 4to. pp. 610. 1l. 11s. 6d. Boards. Johnson. 1803.

THE fearless spirit of investigation, the inflexible adherence to truth, the sober and liberal turn of mind, and the able manner of discussing nice and intricate points, which were so conspicuous in the *Essay on the Principle of Population*, induced us to speak of it, on its first appearance, in the language of warm commendation *; and they equally characterize this production of Mr. Malthus, who now avows himself as its author, in its more finished and systematic form. The principles and views on which it proceeds remain unchanged: but so material are the alterations in its plan and structure, that they intitle it to be considered as a distinct work; and in the shape in which it now presents itself, it stands very much disentangled from the visionary philosophy which it was its primary object to expose: for if at first it only professed to be a refutation of a false hypothesis, it now seeks the same end by exhibiting itself in the more dignified garb of a new and opposite system. As the subject which it embraces is, in many of its parts, of high importance, and of not less novelty, we feel ourselves required to bestow on it more than ordinary attention.

It was an observation of Dr. Franklin, that, on any new discovery being published, the jealousy of philosophers led them first to question its reality; and then, when that point could no longer be disputed, to endeavour to find a prior author, to whom it might be ascribed. Mr. Malthus must not be surprized if his claims, in the same way, should experience the common fate. If, however, the proposition that population

* See Rev. Vol. xxvii. N. S. p. 1.

must be kept down to the level of subsistence was too obvious to be matter of discovery at this time of day, yet to treat of it professedly, and to follow it to all its consequences,—consequences truly momentous, and never before contemplated,—was a novel course, which it was the good fortune of Mr. Malthus first to tread. For him it was reserved to determine the proportion between the increase of population and that of food, and to ascertain the various modes by which, in different countries and ages, the balance between both has been maintained; to find in it a medium, which exhibits under new aspects the laws and manners of nations; and to establish a test by which to try institutions of the most weighty public concern. He was destined to introduce, by these systems, the light of day into many parts of political economy, and of political arithmetic; to render it a ground furnishing new questions of vast importance to society, to civil government, and to domestic happiness; to make it the means of causing the history of every country, antient and modern, to be perused with new interest; and by its application, to shew the fallacy of captivating theories, and to correct important errors in legislation and the administration of government:—errors sanctioned by such high names as those of Montesquieu, Hume, Smith, Price, and Robertson.

Perceiving that equality between the population of a country, and the means of subsistence furnished by its territory, is a law of nature, Mr. M. observes that it follows that the sole method of increasing the former is to render the latter more plentiful. He shews also that in regions the most unfavourable, in climates the most ungenial, and among tribes the most rude, the one will press on the limits of the other; that population requires no incitement beyond adequate subsistence; that to attempt to increase it in any other way is not only ineffectual, but highly pernicious; and that, the quantum of the means of subsistence remaining the same, to multiply marriages, and to render births more numerous, would be to accumulate misery, to increase mortality, and to subject the miserable race to the fatal inroads of disease and famine. He therefore cannot regard celibacy, in a certain degree, as a political evil, nor hold that late and less frequent marriages are injurious to the well-being of society; and consequently he cannot deem that policy, which has been known to favour the one and the other, liable to unqualified censure.

We should not wonder if a system, which originated, we are convinced, in an upright and enlightened mind, and which is now submitted to the public with the best intentions and purest views, should call forth clamour, and subject its author to controversy. The censorious may say, and the superficial

may

may be induced to believe, that it exhibits qualities resembling those which have cast odium on the hypotheses of Hobbes and Mandeville; that it has a direct tendency to deaden our choicest sympathies, to extinguish our most refined sentiments, and to damp our most pleasurable aspirations; that it furnishes apologies for the most inhuman practices, and, by implication, countenances institutions hitherto deemed not less impolitic than monstrous; and that it lessens our sorrow on the view of those calamities which sweep away the species, and our horror at usages which are destructive of human life. It should, however, be the object of every honest and considerate inquirer, to discover whether this theory is founded in truth; to ascertain what are the practical hints, and the useful lessons which it furnishes; and to set himself on his guard against the ill effects to which its abuse, or misconceptions with regard to it, may give rise.

The author thus states the propositions on which he builds his system:

'1. Population is necessarily limited by the means of subsistence.

'2. Population invariably increases, where the means of subsistence increase, unless prevented by some very powerful and obvious checks.

'3. These checks, and the checks which repress the superior power of population, and keep its effects on a level with the means of subsistence, are all resolvable into moral restraint, vice, and misery.

'The first of these propositions scarcely needs illustration. The second and third will be sufficiently established by a review of the past and present state of society.'

He afterward denominates moral restraint, the *preventive* check on population; and vice and misery, the *positive*. The review of these points occupies the greater half of the volume, and includes the cases of the savage nations, of those who at present inhabit Asia and Africa, of the antient Greeks and Romans, and of several of the states of modern Europe. Mr. M. shews that the difference between the power of population in man, and the power of the earth in producing sustenance, is the difference between a geometrical and an arithmetical series; as it is found that each generation of man, when not under the influence of any check on population, doubles its own numbers, while the produce of the earth, under the highest degree of cultivation in any determinate period, only increases by the repeated addition of a fixed quantity. The excess of this power of population creates the preventive check to its progress, namely, moral restraint; or calls forth the operation of the positive, viz. vice and misery. In New Holland, the singularly brutal treatment of the women, the impossibility of rearing many children, the profligacy of manners, wars, secret murders,

highly fatal epidemics, and the recurrence of famine, keep down the population; which is, however, so much on a level with the miserable food to which these ill-fated beings are habituated, that when any event occasions a deficiency of the usual quantity, scarcity and distress ensue.

It is a very just remark of the author, with regard to Savages, 'that, from their extreme ignorance, the dirt of their persons, and the closeness and filth of their cabins, they lose the advantage which usually attends a thinly peopled country, that of being more exempt from pestilential diseases than those which are fully inhabited;' and equally well founded is that which is supported in the following passage:

'It is not, therefore, as Lord Kaimes imagines, that the American tribes have never increased sufficiently to render the pastoral or agricultural state necessary to them; but, from some cause or other, they have not adopted in any great degree these more plentiful modes of procuring subsistence, and therefore cannot have increased so as to become populous. If hunger alone could have prompted the savage tribes of America to such a change in their habits, I do not conceive that there would have been a single nation of hunters and fishers remaining; but it is evident, that some fortunate train of circumstances, in addition to this stimulus, is necessary for this purpose; and it is undoubtedly probable, that these arts of obtaining food will be first invented and improved in those spots that are best suited to them, and where the natural fertility of the situation, by allowing a greater number of people to subsist together, would give the fairest chance to the inventive powers of the human mind.'

Foreseeing an objection which may be raised to his theory, Mr. Malthus observes:

'The very extraordinary depopulation that has taken place among the American Indians, may appear to some to contradict the theory which is intended to be established; but it will be found that the causes of this rapid diminution may all be resolved into the three great checks to population that have been stated; and it is not asserted, that these checks, operating from particular circumstances with unusual force, may not in some instances be more powerful even than the principle of increase.

'The insatiable fondness of the Indians for spirituous liquors, which, according to Charlevoix, is a rage that passes all expression, by producing among them perpetual quarrels and contests, which often terminate fatally, by exposing them to a new train of disorders which their mode of life unfits them to contend with, and, by deadening and destroying the generative faculty in its very source, may alone be considered as a vice adequate to produce the present depopulation. In addition to this, it should be observed, that almost every where the connexion of the Indians with Europeans, has tended to break their spirit, to weaken or to give a wrong direction to their industry, and in consequence to diminish the sources of subsistence. In St. Domingo,

mingo, the Indians neglected purposely to cultivate their lands in order to starve out their cruel oppressors. In Peru and Chili, the forced industry of the natives was fatally directed to the digging into the bowels of the earth, instead of cultivating its surface; and among the northern nations, the extreme desire to purchase European spirits, directed the industry of the greatest part of them, almost exclusively, to the procuring of peltry for the purpose of this exchange, which would prevent their attention to the more fruitful sources of subsistence, and at the same time tend rapidly to destroy the produce of the chace. The number of wild animals, in all the known parts of America, is probably even more diminished than the number of people. The attention to agriculture has every where slackened, rather than increased, as might at first have been expected, from European connexion. In no part of America, either North or South, do we hear of any of the Indian nations living in great plenty, in consequence of their diminished numbers. It may not, therefore, be very far from the truth to say, that even now, in spite of all the powerful causes of destruction that have been mentioned, the average population of the American nations is, with few exceptions, on a level with the average quantity of food, which in the present state of their industry they can obtain.'

The chief object of the work may be distinctly understood from this passage:

'The Abbé Raynal, speaking of the ancient state of the British isles, and of islanders in general, says of them: "It is among these people that we trace the origin of that multitude of singular institutions that retard the progress of population. Anthropophagy, the castration of males, the infibulation of females, late marriages, the consecration of virginity, the approbation of celibacy, the punishments exercised against girls who become mothers at too early an age," &c. These customs, caused by a superabundance of population in islands, have been carried, he says, to the continents, where philosophers of our days are still employed to investigate the reason of them. The Abbé does not seem to be aware, that a savage tribe in America, surrounded by enemies, or a civilized and populous nation, hemmed in by others in the same state, is in many respects in a similar situation. Though the barriers to a further increase of population be not so well defined, and so open to common observation on continents, as on islands, yet they still present obstacles that are nearly as insurmountable: and the emigrant, impatient of the distresses which he felt in his own country, is by no means secure of finding relief in another. There is probably no island yet known, the produce of which could not be further increased. This is all that can be said of the whole earth. Both are peopled up to their actual produce. And the whole earth is in this respect like an island. But as the bounds to the number of people on islands, particularly when they are of small extent, are so narrow, and so distinctly marked, that every person must see and acknowledge them; and inquiry into the checks to population on those of which we have the most authentic accounts may perhaps tend considerably to illustrate the present subject. The question that is asked in captain Cook's first voyage, with respect to the thinly

scattered savages of New Holland, " By what means the inhabitants of this country are reduced to such a number as it can subsist?" may be asked with equal propriety of the most populous islands in the South Sea, or of the best peopled countries in Europe and Asia. The question, applied generally, appears to me to be highly curious, and to lead to the elucidation of some of the most obscure, yet important points, in the history of human society. I cannot so clearly and concisely describe the precise aim of the first part of the present work, as by saying, that it is an endeavour to answer this question so applied.'

In the South Sea islands, the Eareeoie societies among the higher classes, (noticed by Captain Cook,) the promiscuous intercourse among the lower, infanticide, and war, form the principal restraints on population.

Comparing the state of the inferior classes among civilized nations, with that of the savages who live by hunting or fishing, Mr. M. says that, in regard to bodily labour, their lot may be much the same, but that their privations and sufferings will admit of no comparison.

'Nothing appears to me to place this in so striking a point of view, as the whole tenor of education among the ruder tribes of savages in America. Every thing that can contribute to teach the most unmoved patience under the severest pains and misfortunes, every thing that tends to harden the heart, and narrow all the sources of sympathy, is most sedulously inculcated in the savage. The civilized man, on the contrary, though he may be advised to bear evil with patience when it comes, is not instructed to be always expecting it. Other virtues are to be called into action besides fortitude. He is taught to feel for his neighbour, or even his enemy in distress; to encourage and expand his social affections; and in general, to enlarge the sphere of pleasurable emotions. The obvious inference from these two different modes of education is, that the civilized man hopes to enjoy, the savage expects only to suffer.

'The preposterous system of Spartan discipline, and that unnatural absorption of every private feeling in concern for the public, which has sometimes been so absurdly admired, could never have existed but among a people, exposed to perpetual hardships and privations from incessant war, and in a state under the constant fear of dreadful reverses of fortune. Instead of considering these phenomena as indicating any peculiar tendency to fortitude and patriotism in the disposition of the Spartans, I should merely consider them as a strong indication of the miserable and almost savage state of Sparta, and of Greece in general at that time. Like the commodities in a market, those virtues will be produced in the greatest quantity for which there is the greatest demand; and where patience, under pain and privations, and extravagant patriotic sacrifices, are the most called for, it is a melancholy indication of the misery of the people, and the insecurity of the state.'

Montesquieu seems not a little satisfied with himself, when he states his determination of the question respecting the origin of

of that excessive population, which supplied the various hordes that at different periods over-ran the Roman empire. This Colossal power, he says, had occasioned a pressure of population towards what he calls the limits of the universe, when the force impelling in this direction grew weak, and at length wholly ceased; and the inundations in the contrary direction followed in course. Mr. Malthus treats this idea as a conceit unworthy of its distinguished author; and he finds the true answer in that power, which population possesses, of doubling itself in the course of each generation, when allowed full scope: which scope it must be conceived to have had among the northern nations, from the inimitable sketch of their manners drawn by Tacitus.

Among the Tartars, and other modern pastoral nations, Mr. Malthus thinks, 'the principal checks which keep the population down to the level of the means of subsistence, are, restraint, from inability to obtain a wife, vicious customs with respect to women, epidemics, wars, famine, and the diseases arising from extreme poverty. The three first checks and the last appear to have operated with much less force among the shepherds of the north of Europe.'

The causes of depopulation in Turkey are ascribed to scantiness of subsistence, occasioned by the enormous vices of the government.

The checks to population in Persia 'seem to be nearly similar to those in the Turkish dominions. The superior destruction of the plague in Turkey, is, perhaps, nearly balanced by the greater frequency of internal commotions in Persia.'

Epidemics and frequent famines produce the same effect in Hindostan; and in Tibet, the regulations of the ecclesiastics, and the prevailing manners of the laity, combine to repress all increase of population.

Mr. M. discards the fanciful hypothesis by which Montesquieu accounts for the crowded population of China; the principal cause of which he thinks to be the habit prevalent among the lower classes of contenting themselves with spare food: but frequent epidemics, famines, and the practice of exposing children, contribute to impose some restraint on its increase. The same causes operate in Japan, with the exception of infanticide: the absence of which is counterbalanced by the wars and commotions by which the latter country is almost constantly distracted.

With regard to ancient Greece,

'The frequent colonizations which issued out of that country, joined to the smallness of the states, which brought the subject immediately home to every thinking person, could not fail to point out to

the legislators and philosophers of these times, the strong tendency of population to increase beyond the means of subsistence; and they did not, like the statesmen and projectors of modern days, overlook the consideration of a question which so deeply affects the happiness and tranquillity of society. However we may justly execrate the barbarous expedients which they adopted to remove the difficulty, we cannot but give them some credit for their penetration in seeing it; and in being fully aware, that, if not considered and obviated, it would be sufficient of itself to destroy their best planned schemes of republican equality and happiness.'—

'The legislator of Crete, as well as Solon, Pheidon, Plato, and Aristotle, saw the necessity of checking population in order to prevent general poverty; and, as we must suppose that the opinions of such men, and the laws founded upon them, would have considerable influence, it is probable, that the preventive check to increase, from late marriages and other causes, operated to a considerable degree among the free citizens of Greece.

'For the positive checks to population, we need not look beyond the wars in which these small states were almost continually engaged, though we have an account of one wasting plague at least, in Athens; and Plato supposes the case of his republic being greatly reduced by disease. Their wars were not only almost constant, but extremely bloody. In a small army, the whole of which would probably be engaged in close fight, a much greater number in proportion would be slain, than in the large modern armies, a considerable part of which often remains untouched; and as all the free citizens of these republicks were generally employed as soldiers in every war, losses would be felt very severely, and would not appear to be very easily repaired.'

Among the chief causes which kept the population in antient Rome on a level with the means of subsistence, may be enumerated its wars, the inactivity and poverty of the lower citizens, the employment of slaves, the prevalence of celibacy, and infanticide.

The results of the preceding researches are thus stated:

'All the checks to population which have been hitherto considered in the course of this review of human society, are clearly resolvable into moral restraint, vice, and misery.

'Of moral restraint, though it might be rash to affirm that it has not had some share in repressing the natural power of population, yet it must be allowed to have operated very feebly indeed, compared to the others. Of the preventive check, considered generally, and without reference to its producing vice, though its effect appears to have been very considerable in the later periods of Roman History, and in some few other countries; yet upon the whole, its operation seems to have been inferior to the positive checks. A large portion of the procreative power appears to have been called into action, the redundancy from which was checked by violent causes. Among these, war is the most prominent and striking feature; and after this, may be ranked

ranked famines and violent diseases. In most of the countries considered, the population seems to have been seldom measured accurately according to the average and permanent means of subsistence, but generally to have vibrated between the two extremes, and consequently the oscillations between want and plenty are strongly marked, as we should naturally expect among less civilized nations.'

Proceeding to investigate the restraints which depress the population in several of the states of modern Europe, Mr. Malthus mentions Norway as one which furnishes a remarkable instance of the prevalence of the preventive check. The annual deaths in that country are as 1 to 48, and the marriages as 1 to 130.

'The peculiar state of Norway throws very strong obstacles in the way of early marriages. There are no large manufacturing towns to take off the overflowing population of the country; and as each village naturally furnishes from itself a supply of hands more than equal to the demand, a change of place in search of work seldom promises any success. Unless, therefore, an opportunity of foreign emigration offer, the Norwegian peasant generally remains in the village in which he was born; and as the vacancies in houses and employments must occur very slowly, owing to the small mortality that takes place, he will often see himself compelled to wait a considerable time, before he can attain a situation which will enable him to rear a family.

'The Norway farms have in general a certain number of married labourers employed upon them, in proportion to their size, who are called house-men. They receive from the farmer a house and a quantity of land nearly sufficient to maintain a family; in return for which, they are under the obligation of working for him at a low and fixed price whenever they are called upon. Except in the immediate neighbourhood of the towns, and on the sea coast, the vacancy of a place of this kind is the only prospect which presents itself of providing for a family. From the small number of people, and the little variety of employment, the subject is brought distinctly within the view of each individual; and he must feel the absolute necessity of repressing his inclinations to marriage, till some such vacancy offer.'

In the interior of the country, where the preventive check is little obstructed in its operation, the inhabitants live in ease and abundance; while on the coast, where its influence is less, the people are more numerous, and proportionably poor and miserable. The court of Denmark has lately introduced regulations to favour the increase of population, the ill effects of which are dreaded by the sensible Norwegians.

'Norway (says the author,) is, I believe, almost the only country in Europe where a traveller will hear any apprehensions expressed of a redundant population, and where the danger to the happiness of the lower classes of people, from this cause, is, in some degree, seen and understood. This obviously arises from the smallness of the po-

population altogether, and the consequent narrowness of the subject. If our attention were confined to one parish, and there were no power of emigrating from it, the most careless observer could not fail to remark that if all married at twenty, it would be perfectly impossible for the farmers, however carefully they might improve their land, to find employment and food for those that would grow up; but, when a great number of these parishes are added together in a populous kingdom, the largeness of the subject, and the power of moving from place to place, obscure and confuse our view. We lose sight of a truth which before appeared completely obvious; and, in a most unaccountable manner, attribute to the aggregate quantity of land a power of supporting people beyond comparison greater than the sum of all its parts.'—

'Sweden is, in many respects, in a state similar to that of Norway. A very large proportion of its population is, in the same manner, employed in agriculture; and in most parts of the country the married labourers who work for the farmers, like the housemen of Norway, have a certain portion of land for their principal maintenance, while the young men and women that are unmarried, live as servants in the farmers' families. This state of things, however, is not so complete and general, as in Norway; and from this cause, added to the greater extent and population of the country, the superior size of the towns, and the greater variety of employment, it has not occasioned, in the same degree, the prevalence of the preventive check to population, and consequently the positive check has operated with more force, or the mortality has been greater.'

The proportion of the deaths to the population in this country is that of 1 to 34¼. The healthiness of Sweden and Norway is considered as much the same; and hence, the author observes, 'it is difficult entirely to account for the mortality of Sweden, without supposing that the habits of the people, and the continual cry of the goverment for an increase of subjects, tend to press the population too hard against the limits of subsistence, and, consequently, to produce diseases which are the necessary effect of poverty and bad nourishment; and this, from observation, appears to be really the case.'—The influence of the preventive check, though considerable in Sweden, is not so great as it is in Norway; which occasions the positive checks to operate more in the former country.

A bad rural economy obstructs population in Russia, where it is not the interest of the boor to improve his portion of land, since, if it should produce more than is sufficient to support his family, it is curtailed, while the capitation tax charged on the remainder is the same with that which was paid for the whole. The two *Maisons des Enfans trouvés*, the one situated in Petersburgh, the other in Moscow, form another check on population: alluding to these, the author says:

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'The surprising mortality which takes place at these two foundling hospitals of Petersburgh and Moscow, which are managed in the best possible manner, as all who have seen them, with one consent, assert, appears to me incontrovertibly to prove, that the nature of these institutions is not calculated to answer the immediate end that they have in view, which I conceive to be, the preservation of a certain number of citizens to the state, which might otherwise, perhaps, perish from poverty or false shame. It is not to be doubted, that if the children received into these hospitals had been left to the management of their parents, taking the chance of all the difficulties in which they might be involved, a much greater proportion of them would have reached the age of manhood, and have become useful members of the state.

'When we look a little deeper into this subject, it will appear, that these institutions not only fail in their immediate object, but by encouraging, in the most marked manner, habits of licentiousness, discourage marriage, and thus weaken the main spring of population. All the well-informed men with whom I conversed on this subject at Petersburgh, agreed invariably, that the institution had produced this effect in a surprising degree. To have a child, was considered as one of the most trifling faults which a girl could commit. An English merchant at Petersburgh told me, that a Russian girl living in his family, under a mistress, who was considered as very strict, had sent six children to the foundling hospital without the loss of her place.

'It should be observed, however, that generally speaking, six children are not common in this kind of intercourse Where habits of licentiousness prevail, the births are never in the same proportion to the number of people, as in the married state; and therefore the discouragement to marriage, arising from this licentiousness, and the diminished number of births which is the consequence of it, will much more than counterbalance any encouragement to marriage, from the prospect held out to parents of disposing of the children which they cannot support.

'Considering the extraordinary mortality which occurs in these institutions, and the habits of licentiousness which they have an evident tendency to create, it may be said, perhaps, with truth, that if a person wished to check population, and were not solicitous about the means, he could not propose a more effectual measure, than the establishment of a sufficient number of foundling hospitals, unlimited in their reception of children. And with regard to the moral feelings of a nation, it is difficult to conceive that they must not be very sensibly impaired by encouraging mothers to desert their offspring, and endeavouring to teach them, that their love for their new-born infants is a prejudice, which it is the interest of their country to eradicate. An occasional child-murder, from false shame, is saved at a very high price, if it can only be done by the sacrifice of some of the best and most useful feelings of the human heart in a great part of the nation.'—

'The true encouragement to marriage is, the high price of labour, and an increase of employments, which require to be supplied with proper hands; but if the principal part of these employments, apprentice-

ships,

ships, &c. be filled up by foundlings, the demand for labour among the legitimate part of the society must be proportionally diminished, the difficulty of supporting a family be increased, and the best encouragement to marriage removed.'

Notwithstanding the obstacles already mentioned, population advances rapidly in Russia, the births being to the deaths as $2\frac{1}{4}$ to 1, the deaths to the population as 1 to 52, and the marriages as 1 to 92.

In treating of the checks to population in Holland, the author says:

'A very curious and striking contrast to the Dutch villages, tending to illustrate the present subject, will be recollected in what was said respecting the state of Norway. In Norway, the mortality is 1 in 48, and the marriages 1 in 130. In the Dutch villages, the mortality 1 in 23, and the marriages 1 in 64. The difference both in the marriages and deaths is above double. They maintain their relative proportions in a very exact manner, and shew how much the deaths and marriages mutually depend upon each other, and that, except where some sudden start in the agriculture of a country enlarges the means of subsistence, an increase of marriages will only produce an increase of mortality, and *vice versa*.'

In general, after a great mortality, the number of marriages increases: but it may happen that

'The sudden improvement of the condition of the survivors might give them more of a decent and proper pride; and the consequence would be, that the proportional number of marriages might remain nearly the same, but they would all rear more of their children, and the additional population that was wanted, would be supplied by a diminished mortality, instead of an increased number of births.

'In the same manner, if the population of any country had been long stationary, and would not easily admit of an increase, it is possible that a change in the habits of the people, from improved education, or any other cause, might diminish the proportional number of marriages; but as fewer children would be lost in infancy, from the diseases consequent on poverty, the diminution in the number of marriages would be balanced by the diminished mortality, and the population would be kept up to its proper level by a smaller number of births.

'Such changes, therefore, in the habits of a people should evidently be taken into consideration.

'The most general rule that can be laid down on this subject is, perhaps, that any *direct* encouragements to marriage must be accompanied by an increased mortality. The natural tendency to marriage is, in every country, so great, that, without any encouragements whatever, a proper place for a marriage will always be filled up. Such encouragements, therefore, must be either perfectly futile, or produce a marriage where there is not a proper place for one, and the consequence must necessarily be, increased poverty and mortality. Montesquieu, in his Lettres Persanes, says, that in the past wars of France, the fear of being inrolled in the militia, tempted a great number

number of young men to marry, without the proper means of supporting a family, and the effect was, the birth of a crowd of children, "que l'on cherche encore en France, et que la misère, la famine, et les maladies en ont fait disparoître."

Respecting the effects of *towns* on population, the opinion of Mr. Malthus is thus given:

'There is one leading circumstance affecting the mortality of countries, which may be considered as very general, and which is, at the same time, completely open to observation. This is the number of towns in any state, which has been before alluded to, and the proportion of town to country inhabitants. The unfavourable effects of close habitations and sedentary employments on the health are universal; and therefore, on the number of people living in this manner, compared with the number employed in agriculture, will much depend the general mortality of the state. Upon this principle it has been calculated, that when the proportion of the people in the towns, to those in the country, is as 1 to 3, then the mortality is about 1 in 36, which rises to 1 in 35, or 1 in 33, when the proportion of townsmen to villagers is 2 to 5, or 3 to 7; and falls below 1 in 36, when this proportion is 2 to 7, or 1 to 4. On these grounds the mortality in Prussia is 1 in 38; in Pomerania, 1 in 37½; in the Neumark, 1 in 37; in the Churmark, 1 in 35; according to the lists for 1756.'

It has been shewn by a German publicist,

'That the states of Europe may be divided into three classes, to which a different measure of mortality ought to be applied. In the richest and most populous states, where the inhabitants of towns are to the inhabitants of the country, in so high a proportion as 1 to 3, the mortality may be taken as 1 in 30. In those countries which are in a middle state, with regard to population and cultivation, the mortality may be considered as 1 in 32: And in the thinly-peopled northern states, Susmilch's proportion of 1 in 36 may be applied.

'These proportions seem to make the general mortality rather too great, even after allowing epidemick years to have their full effect in the calculations.'

In Swisserland, the author finds the chief prevalence of the preventive check: half the adults in the Pays de Vaud live single, and a still greater proportion in Berne: in which canton, the peasants are not permitted to marry till they are furnished with the arms and accoutrements of the militia. This rule, it is justly observed, induces an economical habit; which, when formed, will dispose the individual to provide something more than what will barely entitle him to enter into the state of wedlock.

The positive checks which, in France and England, obstruct the population, are so well known that they need not be detailed. By comparing the calculations of Messrs. Peuchet and Necker, Mr. M. finds that nearly one third of those who annually reach the age of puberty remain single, and that nearly a million

million and a half of males between the ages of eighteen and fifty are unmarried.

The following causes are stated as diminishing the proportion of marriages in England. In this, as in all countries of great refinement and luxury, numbers of the wealthy give the preference to a life of celibacy. Many of those who belong to the labouring class are aware that their earnings are too scanty to support a family. The domestics of the great are sensible of the sacrifices to which matrimony would oblige them to submit. The youth engaged in agriculture, or in trade, cannot marry till a farm or some business can be procured. The number of those also is great, who, while single, are able to make a genteel appearance, but who, if they married, would be forced to mix with persons of inferior condition. It is calculated that, in this kingdom, not above half the prolific power of nature is called into action; and that each marriage yields, on an average, upwards of five births.

Availing himself of the various facts which the industry of German writers has collected, the author undertakes to refute many received notions on the subject of political economy, and to point out the fallacy and insufficiency of some very important rules of political arithmetic, hitherto universally received. He thinks that there is one very serious mistake, into which all the writers without exception, who have exercised themselves in calculations of this sort, have fallen; viz. that of regarding the proportion of annual births to annual marriages, as expressing the average number of births produced by each marriage in the course of its duration; whereas that proportion is not in any degree affected by such produce, but is determined by the number of the born who live to be married, for it only expresses what is the number of births which supplies a pair for marriage. It furnishes no clue whatever to ascertain the average fruitfulness of marriages; and it is impossible hence to determine whether a marriage yields two, four, or a hundred births, because, in each case, the proportion of annual births to annual marriages may be the same. This proportion, we are told, expresses the average number of births produced by each marriage, solely in the case of population being completely stationary; if it in any degree fluctuates, it is not worthy of reliance for that purpose. It is this false assumption, that gave rise to all the fears respecting depopulation; which, had the rule been a just one, would have been well grounded: since, on an average taken throughout Europe, the births are to the marriages not so high as four to one, while more than half of the born die before they marry. The author, however, is enabled to shew that, where the births have been to the marriages

riages annually below 4 to 1, population has advanced rapidly, while its progress has been slow where this proportion has been so high as $4\frac{1}{10}$ to 1. Mr. Malthus states that the average number of births produced by each marriage, in the course of its duration, depends on the proportion of births to deaths, and on that of births to marriages; and he is of opinion that, taking the average of Europe, more than half of the born live to the age of puberty, and that each marriage yields more than five children.

In order to illustrate his doctrine as to the superior power of population, he tells us that Prussia and Lithuania, in the year following the great plague which raged in those countries in 1709 and 10, the marriages were nearly double the average of those of the six years preceding that calamity; being to the population as 1 to 26, while that of the births was as 1 to 10, and that of the births to the deaths as $3\frac{1}{5}$ to 1: by which state of things, if it had continued, the population must have doubled in less than ten years. The births were at this time to the marriages as $2\frac{7}{10}$ to 1: but when, from the time of the plague, seven or eight years had elapsed, and the effect of that visitation in diminishing the marriages had been felt, the births were to the marriages as 5 to 1: whence, agreeably to the common notion, was inferred the greater fruitfulness of the marriages, but the proportion of the births to the deaths did not support the conclusion.

Upwards of fifty years ago, there prevailed in Swisserland an apprehension that the population was in a progressive state of decay; and M. Muret, desirous of investigating the causes of such a fact, first set himself to work to ascertain whether it was the fact. On an examination of the registers during three equal periods of seventy years, ending in 1620, 1690, and 1760, he satisfied himself that the annual number of births had been in a course of diminution. Mr. Malthus, without quarrelling with the facts of this writer, disputes his conclusions. A diminution of births, he observes, is no proof of a declining population; nay, he says, the number of births may decrease, while the population increases; which will be the case if the mortality, in the class below the marriageable age, diminishes faster than the number of births does. He supposes that, in the periods included by M. Muret, towns became less close, and houses more cleanly; that the mode of living improved; that a greater healthiness prevailed; and that a diminished mortality rendered fewer births necessary to keep up the population. He also adds that, during the first and second of the above periods, the frequent recurrence of the plague rendered necessary an extra number of births, in order to repair its

ravages. He shews that, if a district, owing to any cause whatever, becomes more salubrious than it had been, marriages and births must diminish, in order that the population may remain stationary; on the contrary, where the mortality is great, marriages are more frequent, and contracted earlier, whence a greater fecundity arises; and thus it appears that where the proportion of births to the population is great, that is, when the births are comparatively few, we may infer that ease, comfort, and healthiness prevail in a superior degree. To adopt the common mode of regarding numerous births as a favourable symptom, is therefore an evident and a grave error. England, he says, is an instance of the number of births decreasing, while the population has increased.

It appears from the materials collected for the great statistical work, now preparing for publication in France, that the population of the old territory of that country has rather augmented than diminished during the revolution; and Mr. M. is disposed to admit this conclusion, regardless of the authority and reasonings of Sir Francis D'Ivernois. He quotes M. Peuchet as stating, in his *Essai d'une Statistique Générale*, Paris, 1800, that in France 600,000 persons annually arrive at the age of 18, while it is laid down by M. Necker that 440,000 annually contract marriage; which gives a surplus of 80,000 males, who are not necessary to carry on the population. It is also found that there were 1,451,063 of unmarried males, between the ages of 18 and 50. Suppose, then, that of the unmarried males 600,000 were taken to form armies; and that, in order to preserve entire this establishment, 150,000 recruits were annually necessary; the number of males every year attaining the age of puberty, and the stock of the unmarried above mentioned, would furnish this supply. This process might continue for ten years, and allow the average number of marriages of former years to be increased by 10,000. Each year would, indeed, diminish the above class of unmarried by several passing the age of 50: but then, though they might cease to be fit for war, they would still be able to contribute to the population; and, in this respect, would supply the places of younger persons who had been taken to the armies.—The war, he thinks, would rather favour than be prejudicial to population in the interiour.

It is generally admitted that agriculture did not decline in France during the late war; and that, on the contrary, the dominion of the plough was extended, land was more subdivided, and consequently the gross produce increased: which is all that relates to mere population. The thinness of the towns, and the higher price of labour, would diminish the mortality, where violence

violence did not operate; while the great increase of illegitimate children, the temporary effect of the immoral and impolitic law of divorce, and the additional marriages, would occasion the births to increase in the proportion of $\frac{1}{7}$th of the whole. Mr. M. allows that the *Analyse des Procès Verbaux des Conseils Généraux de Département* describes the population and agriculture of France in a manner far less favourable, than is consistent with the facts and calculations on which he has founded his conclusions. It is also an admission of the author, and certainly an important one,

'That though the numerical population of France may not have suffered by the revolution; yet, that if her losses have been in any degree equal to the conjectures on the subject, her military strength cannot be unimpaired. Her population at present must consist of a much greater proportion than usual of women and children; and the body of unmarried persons of a military age, must be diminished in a very striking manner. This, indeed, is known to be the case, from the returns of the Prefects which have already been received.

'It has appeared, that the point at which the drains of men will begin essentially to affect the population of a country, is, when the original body of unmarried persons is exhausted, and the annual demands are greater than the excess of the number of males rising annually to the age of puberty, above the number wanted to complete the usual proportion of annual marriages. France was probably at some distance from this point, at the conclusion of the war; but, in the present state of her population, with an increased proportion of women and children, and a great diminution of males of a military age, she could not make the same gigantic exertions which were made at one period, without trenching on the sources of her population.'

With the view of farther corroborating the doctrine which ascribes so wonderful a spring to population, and which regards the checks to it as principally caused by the necessary limits of subsistence, Mr. M. states that

'The fertile province of Flanders, which has been so often the seat of the most destructive wars, after a respite of a few years, has always appeared as rich and as populous as ever. The undiminished population of France, which has before been noticed, is an instance very strongly in point. The tables of Susmilch afford continual proofs of a very rapid increase, after great mortalities; and the table for Prussia and Lithuania, which I have inserted, is particularly striking in this respect. The effects of the dreadful plague in London, in 1666, were not perceptible 15 or 20 years afterwards. It may even be doubted, whether Turkey and Egypt are, upon an average, much less populous for the plagues which periodically lay them waste. If the number of people which they contain be considerably less now than formerly, it is rather to be attributed to the tyranny and oppression of the governments under which they groan, and the consequent discouragements to agriculture,

than to the losses which they sustain by the plague. The traces of the most destructive famines in China, Indostan, Egypt, and other countries, are by all accounts very soon obliterated; and the most tremendous convulsions of nature, such as volcanic eruptions and earthquakes, if they do not happen so frequently as to drive away the inhabitants, or destroy their spirit of industry, have been found to produce but a trifling effect on the average population of any state.'

The following passages are highly just, and happily elucidate the theory maintained in this work:

'The highest average proportion of births to deaths in England may be considered as about 12 to 10, or 120 to 100. The proportion in France for ten years, ending in 1780, was about 115 to 100. Though these proportions have undoubtedly varied, at different periods, during the last century, yet we have reason to think that they have not varied in any very considerable degree; and it will appear, therefore, that the population of France and England has accommodated itself more nearly to the average produce of each country than many other states. The operation of the preventive check, vicious manners, wars, the silent, though certain, destruction of life in large towns and manufactories, and the close habitations and insufficient food of many of the poor, prevent population from outrunning the means of subsistence; and if I may use an expression, which certainly at first appears strange, supersede the necessity of great and ravaging epidemicks to destroy what is redundant. If a wasting plague were to sweep off two millions in England, and six millions in France, it cannot be doubted, that after the inhabitants had recovered from the dreadful shock, the proportion of births to deaths would rise much above the usual average in either country during the last century*.

'In New Jersey the proportion of births to deaths, on an average of 7 years, ending 1743, was 300 to 100. In France and England, the highest average proportion cannot be reckoned at more than 120 to 100. Great and astonishing as this difference is, we ought not to be so wonder-struck at it, as to attribute it to the miraculous interposition of heaven. The causes of it are not remote, latent, and mysterious, but near us, round about us, and open to the investigation of every inquiring mind. It accords with the most liberal spirit of philosophy to believe, that not a stone can fall, or plant rise, without the immediate agency of divine power. But we know, from experience, that these operations of what we call nature, have been conducted almost invariably according to fixed laws. And since the world began, the causes of population and depopulation have been probably as constant as any of the laws of nature with which we are acquainted.

'The passion between the sexes has appeared in every age to be so nearly the same, that it may always be considered, in alegebraic

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'* This remark has been, to a certain degree, verified of late in France, by the increase of births which has taken place since the revolution.'

language,

language, as a given quantity. The great law of necessity, which prevents population from increasing in any country beyond the food which it can either produce or acquire, is a law, so open to our view, so obvious and evident to our understandings, that we cannot for a moment doubt it. The different modes which nature takes to repress a redundant population, do not appear indeed to us so certain and regular; but though we cannot always predict the mode, we may with certainty predict the fact. If the proportion of the births to the deaths for a few years, indicate an increase of numbers much beyond the proportional increased or acquired food of the country, we may be perfectly certain, that unless an emigration take place, the deaths will shortly exceed the births, and that the increase that had been observed for a few years, cannot be the real average increase of the population of the country. If there were no other depopulating causes, and if the preventive check did not operate very strongly, every country would, without doubt, be subject to periodical plagues or famines.

'The only true criterion of a real and permanent increase in the population of any country, is the increase of the means of subsistence. But even this criterion is subject to some slight variations, which however are completely open to our observation. In some countries population seems to have been forced; that is, the people have been habituated, by degrees, to live almost upon the smallest possible quantity of food. There must have been periods in such countries when population increased permanently without an increase in the means of subsistence. China, India, and the countries possessed by the Bedoween Arabs, as we have seen in the former part of this work, appear to answer to this description. The average produce of these countries seems to be but barely sufficient to support the lives of the inhabitants, and of course any deficiency from the badness of the seasons must be fatal. Nations in this state must necessarily be subject to famines.

'In America, where the reward of labour is at present so liberal, the lower classes might retrench very considerably in a year of scarcity, without materially distressing themselves. A famine, therefore, seems to be almost impossible. It may be expected, that in the progress of the population of America, the labourers will in time be much less liberally rewarded. The numbers will in this case permanently increase without a proportional increase in the means of subsistence.

'In the different countries of Europe, there must be some variations in the proportion of the number of inhabitants, and the quantity of food consumed, arising from the different habits of living which prevail in each state. The labourers of the South of England are so accustomed to eat fine wheaten bread, that they will suffer themselves to be half starved, before they will submit to live like the Scotch peasants. They might, perhaps, in time, by the constant operation of the hard law of necessity, be reduced to live, even like the lower classes of the Chinese, and the country would then, with the same quantity of food, support a greater population. But to

effect this, must always be a difficult, and every friend to humanity will hope, an abortive attempt.'—

'Other circumstances being the same, it may be affirmed, that countries are populous according to the quantity of human food which they produce, or can acquire; and happy, according to the liberality with which this food is divided, or the quantity which a day's labour will purchase. Corn countries are more populous than pasture countries; and rice countries more populous than corn countries. But their happiness does not depend either upon their being thinly or fully inhabited, upon their poverty or their riches, their youth or their age; but on the proportion which the population and the food bear to each other. This proportion is generally the most favourable in new colonies, where the knowledge and industry of an old state, operate on the fertile unappropriated land of a new one. In other cases the youth, or the age, of a state is not, in this respect, of great importance. It is probable that the food of Great Britain is divided in more liberal shares to her inhabitants at the present period, than it was, two thousand, three thousand, or four thousand years ago. And it has appeared that the poor and thinly-inhabited tracts of the Scotch Highlands are more distressed by a redundant population, than the most populous parts of Europe.'—

'Famine seems to be the last, the most dreadful resource of nature. The power of population is so superior to the power in the earth to produce subsistence for man, that, unless arrested by the preventive check, premature death must in some shape or other visit the human race. The vices of mankind are active and able ministers of depopulation. They are the precursors in the great army of destruction, and often finish the dreadful work themselves. But should they fail in this war of extermination, sickly seasons, epidemicks, pestilence, and plague, advance in terrifick array, and sweep off their thousands and ten thousands. Should success be still incomplete, gigantick inevitable famine stalks in the rear, and, with one mighty blow, levels the population with the food of the world.

'Must it not then be acknowledged, by an attentive examiner of the histories of mankind, that, in every age, and in every state, in which man has existed, or does now exist,

'The increase of population is necessarily limited by the means of subsistence.

'Population invariably increases when the means of subsistence increase, unless prevented by powerful and obvious checks.

'These checks, and the checks which keep the population down to the level of the means of subsistence, are, moral restraint, vice, and misery.'

Mr. M. concludes this part of the work with these remarks:

'In comparing the state of society which has been considered in this second book with that which formed the subject of the first, I think it appears that in modern Europe the positive checks to population prevail less, and the preventive checks more, than in past times, and in more uncivilized parts of the world.

'War,

'War, the predominant check to the population of savage nations, has certainly abated, even including the late unhappy revolutionary contests: and since the prevalence of a greater degree of personal cleanliness, of better modes of clearing and building towns, and of a more equable distribution of the products of the soil from improving knowledge in political economy, plagues, violent diseases, and famines, have been certainly mitigated, and have become less frequent.

'With regard to the preventive checks to population, though it must be acknowledged, that moral restraint does not at present prevail much among the male part of society; yet I am strongly disposed to believe that it prevails more than in those states which were first considered; and it can scarcely be doubted, that in modern Europe, a much larger proportion of women pass a considerable part of their lives in the exercise of this virtue, than in past times and among uncivilized nations. But however this may be, taking the preventive check in its general acceptation, as implying an infrequency of the marriage union from the fear of a family, without reference to its producing vice, it may be considered, in this light, as the most powerful of the checks, which in modern Europe keep down the population to the level of the means of subsistence.'

[*To be continued.*] Jo.

ART. II. *A Second Part to the Morsels of Criticism;* containing additional Dissertations and additional Notes; further illustrating the original Work;—and tending to shew the most perfect Consistency of Philosophical Discoveries and of Historical Facts, with the Holy Scriptures. By Edward King, Esq. F.R.S. and A.S. 4to. 1l. 1s. or 3 Vols. 8vo. 1l. 7s. White.

WHEN an author professes to follow with deep humility the full and firm convictions of his mind, to hesitate in adopting opinions without the fullest inquiry, and to be actuated in communicating them to the public by an impulsive sense of duty, he may reasonably require to be treated with some respect, and may deem all levity of criticism misplaced and indecorous. Such are the declarations of Mr. King; and we must therefore summon up all the gravity of which we are masters, on the present occasion; but, to confess the truth, had these dissertations appeared without a name, and without repeated assurances of the author being completely in earnest, we should have thought that he had been throwing out baits to credulity, and amusing himself with ironical criticisms. Mr. King has, indeed, on a former occasion *, presented us with specimens of his mode of illustrating the Scriptures; and, in the

* See an account of the first part of these *Morsels*, M. R. vol. lxxx. p. 110.

volume before us, he pursues the same course; furnishing us with a number of fancies and conceits, rendered amusing by his learning and science, though not calculated (in our apprehension) to cast any great light on the Scriptures. It is a strange anachronism of criticism, to apply modern philosophical discoveries to Scriptural illustrations; and it is a fruitless attempt to illustrate the O. and N. T., which were intended to teach us the will of God, not the laws of nature, by endeavouring to make the popular phraseology of those books accord with the language of scientific precision. "The *Ends* of the Earth,"—"The *Corners* of the Earth,"—"The Sun coming out of his chamber;"—and many other expressions of antient Scripture, are not in conformity with the Newtonian system; and, since there is not the shadow of evidence that the historian of the Creation had the faintest idea of magnetism, of electricity, of the prismatic colours, and of the different kinds of gasses, how can his language be supposed to be accommodated to these discoveries?

Mr. King pays great deference to the Septuagint version of the O. T. as being that from which our blessed Lord himself and his holy Apostles quoted: but this circumstance is no proof of its philosophical correctness. It deviates in many places, both in its chronology and its expressions, from the Hebrew text, and on some occasions not happily. רקיע is not well rendered by στερεωμα, nor תהו ובהו by αοραλος και ακαλασκευαστος. In the 19th Psalm, for "*in them hath he set a tabernacle for the Sun,*" the lxx write, "In the Sun has he set his tabernacle," εν το ηλιω εθετο το σκηνωμα αυτε. We do not deny the value of this version: but the fact of its having been cited by the writers of the N. T., as the translation then in use among the Helenistic Jews, ought not to supersede our appeal to the Hebrew Scriptures; which, even allowing them to have been in some instances corrupted, still preserve the phraseology of the Jewish prophets and historians.

Writers have indulged themselves in various speculations relative to the history of the Creation, and the state of man in the first age of the world; and we may say of most of them,

> "That learned commentators view
> In *Moses*, more than *Moses* knew."

To this remark, however, Mr. King will not subscribe; for he seems to be of opinion, that all the discoveries attributed to the moderns were in some measure known to this antient sage; and that he never appears ignorant, nor his narrative improbable, excepting in consequence of our not rightly understanding him.

Referring to the observations in the first volume of his Morsels, Mr. K. commences the present with a dissertation on the *Light of the Sun;* in which he labours, by a kind of mathematical reasoning, aided by diagrams, to establish those opinions which we formerly detailed: but we cannot add that he has satisfactorily demonstrated their truth.

The 2d Dissertation treats on the Meaning and Use of the Word *Heavens*; and we are given to understand, that by the *Heaven of Heaven* is meant 'the Universe or System of Fixed Stars;' by *Heavens of Heavens*, 'the Universe of Universes;' and by the single word *Heaven*, 'the Starry Mansions of Bliss:' but this is a mere fanciful interpretation. Our Saviour's comparison of the kingdom of *the Heavens* to a man sowing good seed in his field cannot be reconciled to this distinction. The words ουρανος and ουρανοι are not employed in Scripture with the precision here alleged; nor was it necessary that they should be so used. In the first verse of Genesis, the Hebrew word for Heaven is in the plural number, though in the lxx it is in the singular.

In the 3d Dissertation, Mr. King resists the notion that the Sun and Fixed Stars are not older than our Earth, and that these will be destroyed at what we call the end of the world.

The Greek word Αιων, in its various applications, is supposed to have as many different meanings as the word Ουρανος, and to merit equally profound attention; as there is the *Heaven*, the *Heaven of Heaven*, and the *Heavens of Heavens*, so there is a distinction between the *Aion—the Aion of Aion*,—and *the Aions*, as relating to different states of duration. Ps. 48. 15. accordingly to the lxx, is made to explain this mystery, especially with the help of the author's version:

'Οτι ὁτός ἐστιν ὁ Θεὸς, ὁ Θεὸς ἡμῶν εἰς τὸν αἰῶνα,
Καὶ εἰς τὸν αἰῶνα τῦ αἰῶνος.
Αὐτὸς ποιμανεῖ ἡμᾶς εἰς τὺς αἰῶνας.

'*For this God is our God through* THE AION, *and through* THE AION OF AION. *He shall be our Pastor*, (or *Guide*,) THROUGH THE AIONS.'

As the author speaks with trembling apprehension concerning these different *aions*, or existences in *stars*, *planets*, and *heavenly worlds*, we shall retreat from the giddy height, and hasten to his Dissertation concerning the Creation of Man; which is more intelligible, and more amusing.

Here the honour of being descended from Adam is denied to a great part of the human species; among whom, it is asserted, there exist different breeds, as among horses and dogs. Adam, it is contended, is only the *first* progenitor of the *first* or highest

class or cast of men. Let Mr. King speak for himself on this subject:

Gen. i. 27. ' Καὶ ἐποίησεν ὁ ΘΕΟΣ τὸν ἄνθρωπον, κατ' εἰκόνα ΘΕΟΥ ἐποίησεν αὐτόν· ἄρσεν καὶ θῆλυ ἐποίησεν αὐτούς.

' *So GOD created man in His own image, in the image of God created He him: male and female created He them*

' We tacitly are led then, in the very outset of the Mosaic account, to infer, that as, in the whole wondrous chain of creation, every particular kind, or sort of animal, as well as whales, exists in a distinct *genus*, consisting of many subdivisions of different *species*; all of whom are nevertheless of the *same blood*, and can procreate and produce intermediate species; whereas animals of different *genera* cannot produce any continuing offspring:—so *Man* also, the head of the visible creation on earth, was at first created *of one* GENUS *indeed*,—and all of *one blood*,—and *in the image of GOD*;—but *of different species*;—with different capacities,—and powers,—and dispositions,—for very wise purposes;—having ADAM, (of supereminent abilities, and endowments,) as *the first and head class*, or *species*;—and who was therefore distinguished by that noble appellation, of being A SON OF GOD.

' Can any one, who contemplates the Works of God, and the Power of God, either necessarily, or even reasonably once conclude, that the *Whale-bone* Whale, or the *Grampus* Whale, the *Spermaceti* Whale, the *Fin Fish* Whale, (to use their vulgar names,)—or the different species of the *Balæna*, that are so cautiously distinguished by natural historians, were *all* produced from one single pair of Whales; because only the words τὰ κήτη τὰ μεγάλα, *the great Whales*, are used in the general description, in the 21st verse of the Mosaical account?

' Can any one conceive, that the *Bounce Shark*,—the *rough Hound*, or *Morgay Shark*,—the *Blue Shark*,—and the *White Shark*,—all proceeded from the same pair?

' Or when we read, ver. 25, that God made *the Beast of the earth, after his kind*, (or genus,) and Cattle after their kind; can any one suppose, that the great *Newfoundland Dog*,—the Spaniel,—and the little Dutch *Pug Dog*,—were all descended originally from one and the same pair?

' Or that the very different kinds of Horses had all one only pair to produce them; when such care is taken, even in these modern days, about an equestrian pedigree?

' In like manner, it is almost impossible to rest satisfied with believing, contrary to the whole analogy of the works of creation, that the *White* European,—or Asiatic,—and the *Black long-haired South American*,—the Black *curled-haired African Negro*,—the *Cossack Tartar*,—the *Eskimaux*,—and the *Malayan*,—were all descended from one common ancestor, and mother. And especially as, to this hour, the *very gradation* by which a *white family* may, by various tinting descents, become a *black one*, and by which *a black family* may become a *white one*, are well known:—and to this hour, there is also a *characteristick anatomical distinction* between the *white* man,—and the *black* man,—not only in the well-known *reticulum mucosum*, but also in the very form of *the head*; in the *os frontis*, and *os bregmatis*, or fore and hind

part

part of the crown; and in the extended projection of the lower jaw, and lower parts of the face.

'Both *Whites*, and *Negroes*, and all the tribes of mankind, are most undoubtedly *all of one blood*, as the holy Apostle expresses it;—and can intermarry.—They are, as undoubtedly, *all intelligent reasonable beings, created in the image of God;*—they are all undoubtedly commanded to exercise brotherly love, and are equally objects of Divine mercy;—but they seem unquestionably to have been, from the very first, of different external formation;—and most probably of different powers, dispositions, and capacities; distinguished in such a manner, as no change of climate can sufficiently account for,—notwithstanding the ingenious apprehensions, and plausible reasonings of a *Montesquieu*.

'What can we conclude then?—but that this first chapter of Genesis, when fairly and rightly understood, describes merely, with regard to MAN, *the Creation of the whole distinct* GENUS, at the head of the rest of the works of ALMIGHTY GOD; and *That Genus*, (like the *genera*, or *kinds* of inferior animals,) in the part of his nature which is connected with the animal visible creation, consisting of *several different species*, or *classes*, or *tribes*—Let *Logicians*, or *Linnæans*, describe the subordinate divisions in *whatever terms* they please.'

How, according to this account, can Eve be called the mother of all living; or how can all be said to die in Adam?

Cain is conjectured to have debased himself by marrying into an inferior cast: but the pure Adamitic blood was preserved in the line of Seth.

Respecting the Deluge, it is supposed that, though it was universal, *all* men and *all* animals were not destroyed by it:

'On a fair consideration and investigation of the whole account,' says Mr. K. 'we are at liberty to conclude, that whilst this one branch *of the principal and highest race of mankind*, was preserved in the ark, by this special interposition, and direction of Divine Providence, which is so fully recorded, that some few other human beings, the descendants of the other *Classes*, or *Species*, of the first created men, might be preserved here and there, by the direction, and permission of Almighty Wisdom;—and by such providential means of deliverance, as are in general called *fortunate accidents*.'—

'We have as plain intimations as can be given, that *even in the neighbourhood of Syria, and of Armenia*, there were found, in very early ages, *a race of men*, of different denominations; who were preserved from the general wreck of the deluge; though not by means of the ark:—and although not descended from Noah.

'And if *here*, they were so preserved; in countries so near to that where the ark itself rested; how much rather might scattered remains of the various *species*, and *casts* of mankind at large, be found, in more remote parts of the earth?'—

'But whilst we admit this conclusion, it certainly seems also to appear, from every circumstance of history which we are acquainted with,

with, that by means of the preservation *alone* of the *sacred race*, and divinely-instructed family of *Noah* in the ark, was indeed preserved the knowlege of such of the Divine arts of cultivation, and of adornment in Paradise, as at all remained known to the minds of men.'

To this notion of a superior class commencing in Adam, and of the preservation of a sacred race from which the Messiah regularly sprang, it may be objected that some of Cain's progeny, viz. *Enoch*, *Methuselah*, and *Lamech*, though he is supposed to have intermarried with an inferior cast, are found in the genealogy of Christ, as it is given in Luke iii. Mr. King, however, endeavours to make his theory consistent. He observes that, as in the Paradisaical State the first class were called the *Sons of God*, and as that event which is denominated the Fall destroyed the purity of this cast by intermarriages with lower casts; so, in the Restoration of all Things, the first class or cast will be revived in its pristine purity in the *Elect*, who are to judge the world, to be invested with the title of *Sons of God*, and be what the *Sons of Adam* would have been had there been no transgression. Mr. K. does not encourage the hope of an Universal Restoration: for he gives it as his opinion that, as '*all* mankind were not originally the *Sons of Adam*, neither will *all* Mankind be *the Sons of God*.'

A Dissertation on the Sabbath and sabbatical æra represents Nature, in all her departments, as shewing a decided preference for *the number seven*; which, according to Mr. King, includes a reference to some sublime and pre-ordained appointment. How highly delighted would Dr. Slop have been with the following enumeration! *Seven* Days of the Week; *Seven* Spirits of God; *Seven* Churches; *Seven* Planets; Clean Beasts went by *sevens* into the Ark; *Seven* Primary Colours; *Seven* Notes of Music; *Seven* Metals; *Seven* Semi-metals; *Seven* kinds of Earths; *Seven* kinds of Gasses; *Seven* kinds of Gums; *Seven* of pellucid Jewels; *Seven* kinds of Salts; *Seven* kinds of Fires; *Seven* kinds of liquid Substances; *Seven* kinds of Attractions; and, to enjoy all these gifts of Nature, *seven* Senses; for, know, Gentle Reader! to make out the sacred number, Mr. K. adds to the commonly received five senses, the Sense of Pleasure and the Sense of Pain, as two distinct Senses.—We shall not discuss Mr. King's chronology, but shall introduce a remark relative to the Sabbath. By not reckoning the day according to the original institution, *i. e.* from evening to morning, instead of from morning to evening, we are told that its solemn and sacred observance is overthrown:

'Whilst (says he) we continue to reckon the day,—from twelve o'clock at night, till the same hour the ensuing night;—we render it impossible that such a period should be passed *without* necessary *work*;

work; unless the decent cleanlinesses of life are to be neglected;—the neglect of which, would be an odd sort of *sacred observance.*'

In the next Dissertation, an attempt is made to remove the præternatural appearance from some of the events which are commonly deemed miraculous, by reconciling the accounts of them with philosophical facts; and Mr. King may be correct in some of his explanations of the sacred narrative, in as much as we have imagined miracles where no miracles were intended. For example, in the cases of fasting recorded of Elijah and others in the O. T. nothing more may have been implied, than that they took no food from six in the morning till six in the evening; and "Lot's wife becoming a pillar of salt," may only mean that her body was overwhelmed with a heap of ashes. To suppose, however, that Shadrach, Meshac, and Abednego, were saved from being burnt in the fiery furnace by an indraft and outdraft of air, or that the walls of Jericho fell down in consequence of the arch of a subterraneous cavern giving way, is to outrage probability, to increase the scoffs of the scoffers, and to throw a ridicule on Sacred criticism: yet such, we are well persuaded, could never have been the intention of so pious a writer as Mr. King. As little can we admire the author's commentary on the passage of Exodus, in which the Israelites are represented as spoiling the Egyptians. It should seem by Mr. King's apology that the Israelites were blameless in this transaction: that they borrowed, and meant to return and restore: but Pharoah pursued, and prevented them.

Notes relative to the Seals, Trumpets, and Vials in the Book of Revelation,—concerning the Falling away before the Second Coming of the Messiah,—and on the meaning of the word Σημειον,—finally present themselves: but on these topics we have not time to offer any strictures. We must not, however, omit to inform our readers that Mr. King endeavours to demonstrate that our earth is a *mere shell*, manifesting exteriorly primæval or reflected glory, and having internally a cavern of utter darkness, designed for the prison-house of the wicked. In consequence of its being a hollow globe, sinners, we find, have a place provided for them below the surface; while above it 'the *Wild Goose*, *Eagle*, and *Condor*, are enabled to fly higher than a *Tom Tit* and a *Sparrow*.'!!

Mo-y.

ART. III. *Munimenta Antiqua;* or Observations on ancient Castles, Including Remarks on the whole Progress of Architecture, Ecclesiastical as well as Military, in Great Britain; and on the corresponding Changes, in Manners, Laws, and Customs. Tending both to illustrate Modern History, and to elucidate many interesting Passages in various antient Classic Authors. By Edward King, Esq, F. R. S. and A. S. Vol. II. Folio. 3l. 13s. 6d. Boards. Nicol.

IN our account of the first volume *, we announced the plan of this extensive and superb undertaking; which embraces an elaborate history of Architecture in this country from the days of primæval simplicity and barbarism to the present times, arranged under the four grand divisions of *British*, *Roman*, *Saxon*, and *Norman*. To each head a separate volume is assigned; and in course that which is now before us is occupied with inquiries relative to the works of the Romans in this island, and the style and character of their Architecture. Mr. King has exerted great labour, and employed much learning, in order to illustrate his subject; and if his materials are not so abundant as he might wish, they are nevertheless more ample and amusing than those which furnished matter for the preceding volume. Our painted ancestors knew nothing of Architecture as a science, and every trace of their huts and humble dwellings must soon have perished. Of the monuments attributed to the Druids, indeed, we have some remains: but, as they are not illustrated by history, our inquiries respecting them are confined to the region of conjecture. When, however, we approach the period of Roman conquest and government of Britain, our path is directed by a more certain light; and though here the marks which are to guide us are comparatively few and mutilated, we arrive at some certain conclusions. It ought not to be matter of surprize, as it seems to be with this industrious and learned antiquary, that there are few remains of any considerable structures of the Romans in this country, excepting those of their military walls and camps; because Britain was with difficulty kept in subjection, and the military establishments occupied their chief attention. On this ground, Mr. King might have doubted the grandeur of the edifices of the Romans in this island: but this doubt cannot be justified by the few vestiges of their private dwellings which have been discovered. If it be considered that nearly 1400 years have elapsed since they renounced the empire of Britain; that Italy itself furnishes scarcely any specimens of their villas or habitations; and that most of the Saxon edifices, erected some

* See M. R. Vol. xxxii. N. S. p. 367.

centuries

centuries after them, have yielded to the crumbling hand of time and disappeared;—we shall not wonder at the scanty traces of Roman magnificence. Some foundations of their dwellings, however, have been brought to light; and from their extent, and the tesselated pavements which they inclosed, they are supposed to have belonged to persons of distinction: yet even these, Mr. King is inclined to think, displayed not in their original state any striking architectural grandeur and beauty, but consisted of one story, mostly constructed of wood. It may be objected that the width and solidity of these foundations do not entirely accord with this conjecture: there is, indeed, the best reason for believing them to have been only one story high: but, had they been slight edifices composed of frame-work, or of slender walls, such a strength of foundation would not have been required.

Earth-works and fortifications, from the nature of their construction and their peculiar solidity, are much better calculated to endure through successive generations, than temples and villas; the former of which may be subverted by religious zeal, and the latter will perish by the hand of time: while mounds of earth, which are soon covered with green-sward, resembling works of nature, excite no resentment; and those ramparts and walls, which formed places of retreat and protection to the original conquerors, were likely to be repaired and in some instances enlarged by subsequent invaders.

To works of this kind, erected by the Romans in this island, Mr. King first directs his attention; and in explaining their system of castrametation, he acknowledges his obligations to the late General Roy, whose *Military Antiquities* are often quoted; while frequent references are also made to the admirable collection of plates which enrich that valuable work:—Not that Mr. King uniformly accords with the General, for sometimes he opposes his representations, and corrects those which he deems erroneous.

Omitting here the consideration of *Brito-Roman Fortresses*, or of those strong holds which the Invaders found in a great measure prepared to their hands, and which only required some improvements to render them fit for their own use; the author proposes to direct the attention of the reader to those works which were *originally*, *truly*, and *entirely Roman*. In his enumeration of Roman *Castra*, he commences with that of *Richborough* in Kent; which is the most celebrated of these military structures, as being not only the earliest in the order of time, but as continuing in a better state of preservation than most others. By the communications of Mr. Boys of Sandwich, the present occupier of the land, who has attentively examined the

walls and foundations, Mr. King has been enabled to give a full (and we suppose a very accurate) account of these military remains. This and the other details in the present volume are interspersed with frequent references to sacred history, and sometimes with reflections which almost border on the ludicrous; of which, before we close this article, we shall give some specimens. The observations on the Roman Castrum at Richborough display the author's disposition to allude, on all occasions, to scripture history, while they manifest his ability as an antiquary:

'There is every reason to believe, from the concurrent testimony of medals, and of coins dug up, and of fragments of history, that this magnificent *Castrum* was first formed, in the time of the Emperor *Claudius*;—near the spot where the Romans most usually landed;—where Julius Cæsar is with good reason believed to have arrived after he sailed from the heights near Dover;—and where St. Paul is supposed to have landed, when he afforded to this country, in the earliest age of Christianity, the first light of the Gospel:—causing those who were *last* in point of civilization, to be numbered amongst the *first*, in the advantages of Divine Instruction.

'Here, in the time of Claudius, *Vespasian* was in command;—who was, indeed, the very first Roman general that truly subdued Britain; after having fought thirty-two battles, and taken more than twenty towns; and after having subdued the Isle of *Wight*. And here *Agricola* first arrived in the time of *Domitian*.

'The situation was such, as to have commanded, formerly, in the completest manner one of the mouths of the once great *æstuary*:—*Reculver* having been a similar fortress, in those days, at the other entrance. And the tract between (where now is only the little rivulet, *the Sarr*, or *Stour*, with its bordering meadows), having been the great harbour, where floated the Roman navy; riding in safety, between the British shore, and the then real island, still called the *Isle of Thanet*.

'The importance of this port easily accounts for its having been from the very first beginning of the Roman invasion, so much attended to.

'Its walls, we have reason to believe, were begun about the year 43.—The present structure, however, as well as the remains at *Reculver*, appears to have been, in part, built, or at least to have been added to, and completed, by the Emperor Severus, about the year 205.

'It stands on the extreme point of an hill, or sort of promontory, close to a steep precipice eastward; at the foot of which was the haven;—but where now runs the river *Stour*, or *Sarr*;—and there is the greatest reason to think, that the spot on which this fortress is situated, was also originally, in itself a little distinct Island; whilst the Isle of Thanet was such on a much larger scale;—for a narrow slip of marsh near adjoining, between this spot and *Gursom*, is, even to this very day, sometimes quite overflowed in wet seasons.

'There

'There are, in this distinguished fortress, still plainly to be traced, all the principal parts of one of the very greatest, and most perfect of the *stationary* Roman camps.

'The upper division, for the general, and chief officers;—and the lower division for the legions. And, in the former, the *Prætorium*, with its parade; (sometimes called the *principia*;) containing the *Augurale*, or place for sacrifices, and for consulting the entrails of victims; and the *sacellum*, or small temple, for depositing the chief ensigns; and especially the eagles; which it is well known were made objects of superstitious worship by the Romans; and which are therefore so justly described, in the Holy Scriptures, by the appellation of being the *Abomination of Desolation*. A circumstance, that, on this occasion, deserves the more particularly to be remembered; because it is highly probable, that some of the same kind of Roman eagles were once placed in this identical building at *Richborough*, by Vespasian, that were afterward carried by him against *Jerusalem*, together with the rest of those *very standards* that are alluded to, in the tremendous prophecy, concerning the destruction of the Holy City.

'In the walls of this castrum also, we have the traces of the *four* great gates.

'The *Decuman gate*; or largest gate of all; which took its very name, from being wide enough to permit *ten men at least* to march through it abreast;—and which always conveyed such an idea of magnificent dimensions; that the very word *decumanus* was classically used by the Romans, to signify any thing that was both *huge*, and *fair*;—beautiful, and of *vast size*.

'The Postern gate; or first *principal gate*; (so called because it was *near* the quarters of the principal officers,) and which was narrow; and constructed of such a particular form, as to be most easily defended.

'The *Prætorian gate*; or as it was in this instance, *the water gate*.

'And a fourth, on the side nearly opposite to the *postern*; which was the *second principal gate*.

'Adjoining to the same walls also, on the outside, have been traced foundations of towers clearly Roman; but which yet, (as plainly appears from some part of their construction,) must have been added, *after* the walls of the castrum were built. A circumstance that shews the more strongly the very high antiquity of the original structure.'

A particular account is given of the manner in which the walls of this castrum were constructed, illustrated by plates; and, in noticing the alternate layers of courses of Roman bricks between the stones, Mr. King happily explains a passage in Revelations xxi., relative to the disposition of the precious stones said to be employed in decorating the walls of the Holy City. According to the English translation, they were placed in the foundations, where their beauty must have been lost: but this critic remarks that the word there rendered *Foundations* means these layers or courses between the stone-work:

'The several alternate rows, or courses of stone and brick, (here described, as appearing in this wall,) were by the Greeks who lived in Roman

Roman times, called Θεμέλιοι or Θεμέλια; and are the kind of ornaments alluded to by St. John, as being so highly beautiful, according to every one's apprehension, in his days; when, in his emblematical representation of the walls of the Holy City, in the Prophecy of the Revelations, he speaks of such, being formed of precious stones. The word, Θεμέλια, is in our translation of the passage, very improperly rendered, as far as relates to a consistency with our modern ideas, *foundations*; instead of *courses:* and this mistranslation occasions much confusion in the minds of most persons, who attempt to read the Prophet's sublime description.

'Nevertheless the reason why these alternate rows either of brick, or of smooth flat stones, were antiently called Θεμέλια, or Θεμέλιοι, *foundations*, (though the word seems now so uncouth, and inapplicable, in our ears,) is yet apparent enough. For whoever examines Roman walls attentively, will find, that most usually the broader alternate rows of rude stone, or flints, or rubble, and mortar, were evidently constructed, merely by having the whole mass flung carelessly into a great *caisson*, or frame of wood, whose interior *breadth* was that of the wall; and whose *depth* was that of the space between the alternate rows of bricks; and whose length was sometimes more, and sometimes less, just as suited convenience: and that the parts thus reared, one at the end of another, on, and over each row of bricks, were united together afterwards, merely by means of very small loose stones, and mortar, thrown into the narrow space left at the ends between them.—As therefore these *caissons* were removed up from one row of bricks or smooth stones to another superior row, in constant repetition, according as the wall advanced in height; and were placed successively upon every row; those substantial rows of bricks regularly placed, might very well be called Θεμέλιοι, or Θεμέλια, or *foundations;* because, indeed, *such* they really were, the whole way up, to those indentical building frames.'

Mr. King, however, does not mean to assert that all Roman walls were so built.

The foundations in the form of a Cross, in the center of the platform constituting the *Prætorium*, Mr. King imagines, were those of a *Sacellum*, constructed for the reception of the *principal eagles* and military standards of the several legions: but we have no proof that the Romans built Temples and Sacella in this form; and it is more probable, as the first Christians were induced to convert the very spots which had been dedicated to Pagan superstition into places of Christian worship, that these remains are the foundations of a Christian religious edifice, erected at a subsequent period.

Portchester in Hampshire,—*Pevensey Castle* in Sussex,—*Castor* in Norfolk,—*Chesterford* in Sussex, &c. &c. &c., engage the notice of this ingenious antiquary: but our space will not permit us to follow him through all his details.—Some of the most considerable of the Roman earth-works are also enumerated and described; in which department of the undertaking,

the author professes to borrow from the Military Antiquities. Those at *Ardoch*, in Strathallan; at *Birrens*, in Annandale; at *Chew Green*, on the Borders; and near *Kirkboddo*, in Strathmore, Angus; are specified as most worthy of examination.

After having traced the sites and the dimensions of Roman Castra, Mr. King undertakes the more difficult task of explaining the mode of their occupation by the Roman legions, and the distribution of the different officers and troops of which the Roman armies consisted. For this purpose, it was necessary to ascertain the component parts of a legion. Here Mr. King observes that

'A single legion most usually consisted of 4200 foot, and of 300 horse;—and was composed of the following different *corps*, (as we should now call them);—

1200 *Velites*, or light armed troops.
1200 *Hastati*,
1200 *Principes*, } all heavy armed.
600 *Triarii*,
300 *Equites*; or Roman knights;—forming the cavalry.

4500

To all which there almost constantly was an addition of *Auxiliaries*, or *Socii*, consisting of 4200 foot,
and 900 horse;

5100

causing the amount of the whole regular force to be 9600 men.'

Their subdivisions of the infantry into maniples, and of the cavalry into turmæ, the number of the officers assigned to each, and the particular manner in which the several descriptions of troops were armed, are also stated. Speaking of the *Triarii*, who were picked and chosen veterans, and who had their spears much thicker and shorter than the rest; he takes occasion to hint, in one of those curious notes to which we have already alluded, that 'this shortness and thickness of the pile or spear, being an usage derived from more ancient warlike nations, is an argument that may induce us to suspect the first Romans to have been descended, *somehow or other*, from the Philistines.' Thus, from this trivial circumstance, it is, *somehow or other*, to be inferred that the Romans and the Carthaginians had the same origin. Mr. King immediately subjoins another "Morsel of Criticism;" viz. that 'these thick spears which were 3 inches in diameter, and about 4½ feet long, enable us to understand the propriety of the expression in Holy Writ, concerning *Goliah the Philistine;—that the staff of his spear was like a wea-*

ver's beam.' The expression, in our opinion, remains as hyperbolical as it was before,

To return from this digression, and from the Giant of Gath and his enormous spear, to the distribution of a Roman legion in an encampment. At this distance of time, it is impossible to specify the minutiæ of the arrangement with precision, though Polybius has furnished us with several important data, respecting the mode in which a consular camp was formed.—'First, a standard or *Eagle* was placed *where*, by the Consul's appointment, the Prætorium was to be fixed; then the sides on which the *Decuman* and Prætorian gates were to be placed being determined, a space was set off in both these directions, and in the traverse direction, of *one hundred Roman feet each way;*—*with an area comprising about four Roman acres.*' In translating the passage in Polybius describing the contents of the area of the Prætorium, (Lib. VI. § 25.) Mr. King differs from Casaubon, Hampton, and General Roy; and he ingeniously maintains the propriety of his new version: which, though it may not give Polybius's idea with absolute correctness, yet avoids the impossibility asserted by the former translations, by which it should seem that an area of 200 feet square contained four acres, when, in fact, it does not contain two. The words of Polybius are:

'Τοῦ κριθέντος ἀεὶ τόπου πρὸς Στρατοπεδείαν — — — — — —

Τεθείσης δὲ τῆς σημαίας, οὗ μέλλουσι πηγνύναι ταυτην ἀπομετρεῖται περὶξ τῆς σημαίας τετράγωνος τόπος ὥστε πάσας τὰς πλευρὰς ἑκατὸν ἀπέχειν πόδας τῆς σημαίας, τὸ δὲ ἐμβαδὸν γίνεσθαι τετράπλεθρον.'

which Hampton translates,

"*In this place* (*i. e.* in the place marked out for the Consular tent) *an ensign is planted in the ground, and round it is measured a quadrangular figure, every side of which is distant from the ensign an hundred feet; so that the whole contents of it are equal to the space of four acres.*"

To obviate the palpable error of this assertion, Mr. King considers το εμβαδον as meaning not *the area* itself, but the walk *round it;* and he thus literally renders the passage:

'*The place always being first fixed upon for the* PRÆTORIUM;——*and the standard being pitched where they were about to set up* THAT;—*there was then measured round the standard a square space;—so that all* ITS *sides were an hundred feet distant from the standard;—and so that the walk round* (this) *was of four acres.*'

Admitting this version, the area of the Prætorium, in a consular camp *of two legions and auxiliaries*, was 400 feet square; and this space being first marked out,

'A line was drawn before the Prætorium and parallel to it, at the distance of 50 feet, running quite across the camp,—and within this boundary,

boundary, on each side the Prætorium, were placed the tents of the twelve Tribunes, at equal distances;—six on the right, and six on the left; the spaces between serving for their horses, and attendants:—and beyond them, nearer to the two extremities, the tents of the twelve Præfects of the Allies, six on the right, and six on the left, were placed in the same manner;—having the whole of the soldiers tents in their front.

'Beyond this line, another was marked parallel to it, at the distance of 100 feet: and this latter interval formed the *Principia,* or the principal street, in the front of these officers' tents:—at the extremities of which street were the two *principal,* or side *gates.*

'This street was always kept clear of all incumbrances, by a constant guard;—was made quite level;—always kept smooth, and clean;—and served for mustering the whole army, previous to a march.'

We cannot insert the detailed explanation which follows, and must close this subject with transcribing the table of admeasurement and the subjoined remark.—A Roman camp being a perfect square, the breadth of the camp along the Principia, or principal street, from one side gate to the other, will consist of

	Feet.
'The breadth of the space left next the Vallum -	200
Two maniples of *Allied foot* - -	200
A street - - - -	50
Two maniples of Allied horse -	200
A street - - - -	50
A maniple of *Hastati,* and a maniple of *Principes*	200
A street - - - - -	50
A maniple of *Triarii,* and a maniple of *Equites*	150
The great Decuman street, in the midst -	50
A maniple of *Equites,* and a maniple of *Triarii*	150
A street - - - -	50
A maniple of *Principes,* and a maniple of *Hastati*	200
A street - - - -	50
Two maniples of *Allied horse* - -	200
A street - - - -	50
Two maniples of *Allied foot* - -	200
The breadth of the space left next the Vallum	200
	2250

and the length of the Camp, from the *Decuman,* to the *Prætorian* gate, will consist of,

	Feet.
The breadth of the space left next the Vallum	200
Five maniples of Roman *Equites* - -	500
The street *Quintana* - - - -	50
Five maniples of Roman *Equites* - - -	500
The *Principia,* or principal street - -	100
Carried over	1350

	Brought over	1350
The *Tribunes'* allotment - - -		50
The *Prætorium* - - - -		400
The great street behind the *Prætorium* -		100
A maniple of *Extraordinary horse*, and half a maniple of *Extraordinary foot* - - -		150
The breadth of the space left next the Vallum		200
		2250

'And it is most remarkable, and no small confirmation of the propriety of adopting all these ideas precisely; that these dimensions for the sides of a Consular camp, agree better with the curious Remain of the camp at *Kirkboddo*, that has been already mentioned, (and which General Roy so justly concludes to have been designed to hold a single Legion, with its Allies,) than his own dimensions assigned for a Consular camp:—for it was 2280 feet in length, and 1080 feet in breadth *.'

We must not pass this system of Roman castrametation, without transcribing another of Mr. King's ingenious notes:

'It is curious, to reflect on *second causes*, upon this occasion: and in considering the progress of the various *great Powers* that have been on earth, to discern,—that the improvement, of the construction of *rapid armed Chariots of Iron*, seems to have produced *the first Assyrian Kingdom*;—the improvement, of the mode of *Fortification*, by means of stronger stone walls, and towers; and of the mode of *Attack*, by means of *blockading Cities* with *vast hosts*; seems to have produced the *Babylonian Empire*:—the improvement, of forming bodies of *Cavalry*, seems to have produced the *Persian*;—the improvement, of forming a *Phalanx*, of heavy armed troops, seems to have produced the *Macedonian*. This invention of *Castrametation*, and strict *Discipline*, the Roman;—Raging zeal, and the *Sabre*,—*the Saracen*;—and the invention of *Cannon, and Gunpowder*, the *Turkish Empire*.

'* The square area of a Roman camp, according to General Roy's dimensions of its sides, which he computed to be 2150 Roman feet, or about $2077\frac{1}{3}$ English feet, will be 4622500 Roman feet, or very nearly 4314621 square English feet: and the half, therefore, 2311250 Roman square feet, or $2157310\frac{1}{2}$ English square feet. But, according to the conclusions formed in these pages, its sides will be each just 2250 Roman feet, or about 2173 English feet; and its square area 5062500 Roman square feet, or about 4721929 English square feet:—and the half thereof, 2531250 Roman, or $2360964\frac{1}{2}$ English square feet.

'Now the camp at *Kirkboddo* is, according to General Roy's measures, 2280 feet, by 1080. Its area, therefore, is plainly 2462400 square English feet. And this unquestionably agrees better with $2360964\frac{1}{2}$, the half of a Consular camp of 2173 feet square; than with $2157310\frac{1}{2}$ square feet, the half of $2077\frac{1}{3}$ feet square.

'Or, if we take the measures in Roman feet; according to which the sides of the camp at Kirkboddo will be very nearly 2360, by 1118. Then its area, 2638480 Roman square feet, agrees better with 2531250 the half of a Consular camp of 2250 Roman feet square, than with 2311250, the half of 2150 Roman feet square.'

They

'They were all *instruments* in the hands of the MOST HIGH.—And *that*, which we are ever too ready to consider as *mere invention*; — awakened, as it appeared to the common eye, only in the minds of one or two obscure men, whose names we are hardly acquainted with; seems to have been indeed, the main hidden spring, that did put in motion all these so *vast Powers*, that have terribly produced, from generation to generation, such tremendous, and such different events, in successive periods, on the face of the whole earth.

'Was not then *that invention* a sort of *real Inspiration?* —And are we not led to conclude certainly that it was so;—even from what is expressly said in Holy Writ, concerning the exquisite skill of *Bezaleel*, and *Aholiab?*'

From military antiquities, the author descends to those of a more private and humble kind; adducing the number of fragile tesselated pavements, as proofs of the slightness of the superstructures originally belonging to them; for, as we have already remarked, he is of opinion that the Romans displayed no grandeur in their buildings in Britain. The antiquities discovered at Woodchester (of which the ingenious Mr Lysons has given complete representations,*) deservedly employ much of Mr. King's attention. Here, in describing a tesselated or mosaic pavement, found in a room which is conjectured to have been the state *Triclinium*, he particularly mentions the *labyrinth fret* with which it is bordered; adding, in a note, that since this said fret is also found in Tuscan Vases, on the cloths of the South Sea Islanders, in China, and in Japan—'I could almost be inclined to call it *Eve's pattern.*' We have heard of Eve's spinning, but never before of the patterns which she worked on her garments.

Whether the author be correct or otherwise in concluding that the buildings of the Romans, in this island, were inferior to the usual estimate of them, he has suggested the best possible way of illustrating these antiquities, by appealing to the description of Roman buildings in Italy. The accounts given by the younger Pliny of his villas at Tusculum and Laurentum will occur to the classical reader; who has perhaps often laboured in vain to form the ground plan of either from these descriptions, though very minute. Mr. King ventures on a plan of the Laurentine Villa, according to the representation of it which Pliny himself sends to his friend Gallus (Lib. 2. Ep. 17.): but, though we have been amused by the attempt, so many objections presented themselves as we were comparing it with the letter, that we cannot compliment him on his success.

By the circumstance of there being few remains of Roman arches in Britain, the author is led to inquire into the date of

* See M. Rev. Vol. xxv. N. S. p. 173.

the invention of the arch, which did not long precede the invasion of Julius Cæsar. It is observed that there were no *Arches* in Solomon's temple, and that there is no mention of them by Homer; no arches in the Egyptian temples or pyramids, nor in the pensile gardens at Babylon, nor in the antient Hindoo buildings, nor in the ruins of Persepolis, nor at Athens, nor in the temples of Ephesus and Pæstum. Mr. K. apprehends that the *Arch* was originally invented by Archimedes, and introduced but a short time previously to the Augustan age. He does not attribute its origin, as he does the proportions of the Ionic order, to Revelation: but its introduction at the period just specified occasions one of those far fetched remarks, which, in our judgment, add not to the merit of the work. Having observed that the Arch was invented no very long time before the age of Augustus, he subjoins this note:

'If this be the real fact, it is a very remarkable concurrence of *circumstances*, and *æras*, that the very first notice taken of *the form of an arch*, and the very first mention of it upon record, should have been when the glorious *rain bow* in heaven was made the *everlasting sign*, and token of *Reconciliation* and *Mercy*; and that the first *realizing of the arch*, and the first instances of the bringing of it into actual use, as *a part of architecture*, should have been precisely in the æra in which the *promised Deliverer*, THE LORD OF PEACE, descended upon earth, and took upon him to be born as a man, to seal the first and original everlasting promise, and Covenant of Salvation.'

In the concluding Reflections, the author considers the Roman Invasion of this country, though utterly unjustifiable, and attended with many horrid cruelties, as having been the means employed by Providence for putting an end to *Druidical Superstition*, and at length for introducing the *Light of the Gospel*, with the consequent ideas of improved civilization.

Many plates enrich this work, from the continuation of which we expect much entertainment. **Mo-y.**

ART. IV. *A General System of Nature*, through the three grand Kingdoms of Animals, Vegetables, and Minerals; systematically divided into their several Classes, Orders, Genera, Species, and Varieties, with their Habitations, Manners, Economy, Structure, and Peculiarities. Translated from Gmelin's last Edition of the celebrated *Systema Naturæ*, by Sir Charles Linné: Amended and enlarged by the Improvements and Discoveries of later Naturalists and Societies, with appropriate Copper-plates. By William Turton, M. D., Author of the Medical Glossary. 4 Vols. 8vo. 2l. 10s. Boards. Lackington and Co. 1802.

THE public have so long been in possession of the Linnéan arrangement of natural objects, with various enlargements and improvements, and of our sentiments concerning its excellencies

lencies and defects, that we deem it superfluous to resume the consideration of its merits on the present occasion. Of the various editions of the *Systema Naturæ*, that of Gmelin holds the first rank. That it has not sooner appeared in an English form is, probably, owing to the bulky nature of the work, and to the limited number of naturalists who are unacquainted with the Latin language. In proportion, however, as the acquirement of the latter becomes less an object of general study, and a scientific contemplation of the works of nature begins to be diffused among various ranks, and especially among the fair sex, a vernacular exhibition of the prevailing nomenclature and characters is rendered more desirable.

To fidelity and perspicuity, the prime virtues of a translator, Dr. Turton seems to have scrupulously adhered. The four volumes now published comprehend the animal kingdom, and include upwards of thirty new genera, with a proportionate number of species. As an exemplification of the work, we quote the first and last genus, and an intermediate one at random;

MAMMALIA.

ORDER I. PRIMATES.

Fore-teeth cutting; upper 4, *parallel; teats* 2 *pectoral.*

1. HOMO.

Sapiens. Diurnal; varying by education and situation.

2. Four footed, mute, hairy. *Wild Man.*
3. Copper-coloured, choleric, erect. *American.*
   Hair black, straight, thick; *nostrils* wide, *face* harsh; *beard* scanty; *obstinate*, content, free. *Paints* himself with fine red lines. *Regulated* by customs.
4. Fair, sanguine, brawny. *European.*
   Hair yellow, brown, flowing; *eyes* blue; *gentle*, acute, inventive. *Covered* with close vestments. *Governed* by laws.
5. Sooty, melancholy, rigid. *Asiatic.*
   Hair black; *eyes* dark; *severe*, haughty, covetous. *Covered* with loose garments. *Governed* by opinions.
6. Black, phlegmatic, relaxed. *African.*
   Hair black, frizzled; *skin* silky; *nose* flat; *lips* tumid; *crafty*, indolent, negligent. *Anoints* himself with grease. *Governed* by caprice.

Monstrosus. Varying by climate or art.

1. Small, active, timid. *Mountaineer.*
2. Large, indolent. *Patagonian.*
3. Less fertile. *Hottentot.*
4. Beardless. *American.*
5. Head conic. *Chinese.*
6. Head flattened. *Canadian.*

The anatomical, physiological, natural, moral, civil, and social histories of man, are best described by their respective writers.'

'39. CUCUJUS. *Antennæ* filiform: *feelers* 4, equal, the last joint truncate and thicker: *lip* short bifid, the divisions linear and distant: *body* depressed.

'*Depressus.* Thorax denticulate and with the shells red: legs simple black.
Inhabits *Germany*. *Frish. Ins.* 12. *tab.* 7. *fig.* 1.
Antennæ black hairy: *head* depressed with an obtuse angular globule each side: *mouth* and *eyes* black; *shells* rigid: *body* beneath and legs black.

'*Sulcatus.* Thorax grooved; black; shells with crenate striæ.
Inhabits *Croatia,* in rotten wood.
Antennæ short: *head* with 3 grooves, the middle one longer.

'*Rufipes.* Thorax grooved: shells punctured: black: antennæ and legs ferruginous.
Inhabits *Barbary,* in wood: large.
Antennæ pale-ash, the first joint black; *head* punctured; *thorax* narrowed behind, with 3 grooves; *shells* impressed with numerous dots: *abdomen* piceous: *legs* ferruginous.

'*Caeruleus.* Thorax grooved: black: shells striate blue: abdomen rufous.
Inhabits *Germany*. Tenebrio depressus. *Linn. Syst. Nat.*
Head black: *mouth* piceous: *shells* striate polished.

'*Festivus.* Thorax grooved: black; shells striate blue: edge of the abdomen and shanks rufous.
Inhabits *Germany;* about half as large as the last.
Thorax 2-grooved, or rather impressed each side.

'*Castaneus.* Thorax grooved: black; striate shells margin of the abdomen and legs testaceous.
Inhabits *Germany*; probably a variety of the last.

'*Dubius.* Thorax denticulate; rufous; shells black: antennæ as long as the body.
Inhabits *North America.*
Antennæ flexuous, the last joint acute: *shells* striate.

'*Flavipes.* Thorax denticulate black: legs yellowish: antennæ as long as the body.
Inhabits *Europe*. Cerambyx planatus. *Lyn. Syst. Nat.*
Antennæ brown: *head* black: *mouth* yellowish: *thorax* denticulate grooved: *shells* smooth brown.

'*Pallens.* Thorax serrate dusky: shells striate: abdomen and legs testaceous.
Inhabits *Europe;* very much resembles the last.
Antennæ as long as the body: *shells* testaceous.

'*Derme-*

* *Dermestoides.* Thorax grooved: brown; shells smooth testaceous.
Inhabits *Germany*; small.
Antennæ short: *body* brown: *shells* with 2 grooves.

* *Testaceus.* Thorax nearly square, unarmed: body testaceous; thighs compressed.
Found under the bark of the birch-tree.
Antennæ nearly as long as the body: *body* long: *legs* short.

* *Muticus.* Thorax unarmed black, with an impressed dot each side: shells striate brown.
Inhabits *Germany*.
Antennæ shorter than the *body*: *shells* filiform: *legs* simple.

* *Monilis.* Thorax unarmed with a ferruginous margin: body black: shells with a ferruginous spot.
Inhabits *Germany*.
Antennæ short moniliform: *body* beneath dull ferruginous.'

'118. MONAS. *Worm* invisible to the naked eye, most simple, pellucid, resembling a point.

* *Atomus.* Whitish, with a variable point.
Adams Microsc. p. 431. *tab.* 25. *fig.* 1.
In sea water kept a long time: *body* a white point, something oval, with a minute black dot variable in its position, rarely with 2.

* *Punctum.* A solid opake black point.
Adams microsc. p. 431. *n.* 3.
In fetid infusions of pears: *body* round, long, moving in a slow wavering manner.

* *Mica.* Transparent, with an oval movable circle in the middle.
Common in purer waters. *Adams microsc. p.* 433. *n.* 6.
Body a lucid point, variable in its motions, and encompassed by a beautiful halo.

* *Lens.* Transparent, with sometimes a greenish margin.
Baker microsc. expl. tab. 10. *fig.* 1—3.
Lewenh. arcan. nat. p. 40. *fig.* E.
Hill hist. an. tab. 1. 1. *Spallanz. an. Inf. f.* 11.
Joblot microsc. 1. *tab.* 5. *fig.* 8. Z.
Wrish. anim. infus. fig. 1—4.
Found in all water: a round pellucid dot, frequently in masses, without the least vestige of intestines.

* *Termo.* A most minute simple gelatinous point.
Adams microsc. p. 430. *n.* 1.
In most animal and vegetable infusions: of all known animals the most minute and simple, being so extremely delicate and transparent as often to elude

the most highly magnifying powers, blending as it were in the water in which it swims.

These are thy glorious works, parent of good Almighty. MILTON.'

The plates are neither numerous nor finely executed: but they are so contrived as to afford considerable help to the young student. The typography is by no means faultless, and many of the references and synonyms have been omitted, to save room. Notwithstanding these imperfections, however, we regard the present attempt as highly praiseworthy; and we trust that, while it contributes to propagate the growing taste for the study of natural history, it will, at the same time, amply reward the labours of the translator.

Mufr.

ART. V. *An Essay on War, in Blank Verse;* Honington Green, a Ballad; The Culprit, an Elegy; and other Poems on various Subjects. By Nathaniel Bloomfield. Crown 8vo. 4s. Boards. Hurst, &c. 1803.

THESE poems are written by a brother of Mr. Robert Bloomfield, and, like them, are ushered into the world under the auspices of Mr. Capel Lofft; who has deservedly acquired the highest credit by his exertions in favour of unnoticed genius. In the Preface, Mr. L. expresses the warmest approbation of the verses produced by this ingenious candidate for poetical fame; and we should gladly have concurred with him, if the beauties which he describes had been visible to us in the strong colours in which he views them. He speaks thus of one of the poems:

'I regard it as a Poem of extraordinary vigor and originality; in Thought, Plan, Conduct, Language, and Versification. I think it has much indeed of the philosophic character, poetic spirit, force of coloring, energy and pathos, which distinguish LUCRETIUS. Of the justness and spirit of the VERSIFICATION I have already spoken.'

It seems that Mr. Nathaniel Bloomfield is by profession a taylor; and Mr. Lofft has employed some space in obviating the prejudice with which he supposes that a taylor's poetry will be received. We are not conscious of any such idle feeling: but we are obliged to declare our opinion that these poems do not merit the high eulogium bestowed on them by their patron. We speak plainly, because it does not appear probable to us that the paths of poetry, toilsome in effect, however flowery in appearance, will afford any compensation to the author for the relinquishment of his usual habits of honest industry.

industry. The conclusion of Mr. Lofft's Preface made us smile:

'It remains then for Prejudice to vanish like Mists before the Sun: while the two BROTHERS sociably ascend PARNASSUS together; higher than ever Brothers have climbed before: I might add, each of them to an height which but few have ever reached.'

This praise is quite hyperbolical, and can only heighten the disappointment of the reader who sits down to such lines as the following:

'Silent and motionless the legions stand,
By looks examining each other's heart:
But soon a murmur through the ranks proceeds,
Swelling as quickly a terrific roar;
Like heavy waters breaking from their mounds,
A long, and loud, and inarticulate shout,
While every weapon vibrates in the air,
And hisses it's fierce vengeance at the foe.
'The righteous cause admits of no delay;
No tardy foot impedes the immediate march;
The Enemy, not taken by surprise,
Wak'd by the watchful fears of conscious guilt,
On their frontiers await the coming foe.
'Now at the near approach of threatening Death,
Full many a thinking, sighing, aching heart,
Indulges secretly the hopeless wish
For Life, and Peace....Alas! it cannot be:
To advance is to encounter dreadful danger;
But to recede, inevitable death;
His own associates would deal the blow:
'Thus led by Fate, behold upon the plain,
The adverse bands in view, and in advance.
Now Fear, Self-pity, and affected Courage,
Speak in their hideous shouts with voice scarce human;
Like that which issues from his hollow throat
Who sleeping bellows in a frightful dream.
More near their glaring eye-balls flashing meet;
Terror and Rage distorting every face,
Inflame each other into trembling fury.'

These verses have been selected as a fair specimen; the succeeding passages are apparently more laboured, but not much more happy:

'GUNPOWDER! let the Soldier's Pean rise,
Where e'er thy name or thundering voice is heard;
Let him who, fated to the needful trade,
Deals out the adventitious shafts of Death,
Rejoice in thee; and hail with loudest shouts
The auspicious era when deep-searching Art
From out the hidden things in Nature's store

Cull'd

Cull'd thy tremendous powers, and tutor'd Man
To chain the unruly element of Fire
At his controul, to wait his potent touch:
To urge his missile bolts of sudden Death,
And thunder terribly his vengeful wrath.
Thy mighty engines and gigantic towers
With frowning aspect awe the trembling World.
Destruction, bursting from thy sudden blaze
Hath taught the Birds to tremble at the sound;
And Man himself, thy terror's boasted lord,
Within the blacken'd hollow of thy tube,
Affrighted sees the darksome shades of Death.
Not only mourning groves, but human tears,
The weeping Widow's tears, the Orphan's cries,
Sadly deplore that e'er thy powers were known.
Yet let thy Advent be the Soldier's song,
No longer doom'd to grapple with the Foe
With Teeth and Nails.... When close in view, and in
Each-other's grasp, to grin, and hack, and stab;
Then tug his horrid weapon from one breast
To hide it in another:—with clear hands
He now expertly poizing thy bright tube,
At distance kills, unknowing and unknown;
Sees not the wound he gives, nor hears the shriek
Of him whose breast he pierces ... GUNPOWDER!
(O! let Humanity rejoice) how much
The Soldier's fearful work is humaniz'd,
Since thy momentous birth—stupendous power.'

No candid critic can allow any superior merit to this quotation. What trace of Lucretius can be discovered in such conceits, as '*Destruction bursting from a blaze, to frighten the birds;*' and '*Man, the boasted lord of gunpowder's terror, seeing the shades of death within the hollow of a Gun barrel?*' This and much more should have undergone the pruning-knife. There are, however, passages which merit more indulgence; and such is that which follows the lines just quoted:

'In Britain, where the hills and fertile plains,
Like her historic page, are overspread
With vestiges of War, the Shepherd Boy
Climbs the green hillock to survey his flock;
Then sweetly sleeps upon his favourite hill,
Not conscious that his bed's a Warrior's tomb.'

The poem on Honington Green is even less elegant than the former:

'Thro' the poor Widow's long lonely years,
Her Father supported us all:
Yet sure she was loaded with cares,
Being left with six Children so small.

Meagre

Meagre Want never lifted her latch;
Her cottage was still tight and clean;
And the casement beneath it's low thatch
Commanded a view o'er the Green.'

The Culprit is a composition in short stanzas, which displays the emotions of a Criminal during the interval between the retirement of his jury, and the declaration of their verdict: it is rather prosaic. Some smaller poems conclude the volume, on which we shall forbear to animadvert, since we cannot speak highly in their praise.

It would be unjust to ourselves to dismiss this subject, without adding that we have felt real pain in giving so unfavourable an account of this performance. We pay every possible attention to the feelings of an author so circumstanced as he whose book is now before us: but we cannot forfeit our credit with the public by applauding him. Let him consider that the poet's road to fame is successfully trodden by few; and that men are often unable to command a respectable station in poetry, who possess all the advantages of learned education and powerful connections. It would have been happy for Mr. B., if he had met with a friend of a more difficult taste than his editor: for an admiring judge is more likely to spoil a young poet, than even a captious censor.

Fer.

ART. VI. *Plan of National Improvement*, pointing out the Means to render Great Britain Independent of Supplies of Corn from Abroad, to extend the British Fisheries, and augment the Military and Naval Strength of the Empire without Expence or Inconvenience to the Public. To which are added Remarks on the several Attempts that have been made to Invade the British Islands; and an Exposition of Bonaparte's grand Project to conquer Great Britain and Ireland: with Observations on the present Invasion of Hanover. 4to. pp. 154. Brunswick. 1803. Budd, London. Price 10s. 6d. Boards.

THIS volume is obviously the production of the same pen which gave to the world the interesting *Sketch of the relative strength of France and Russia*, noticed in our last number, and exhibits similar evidences in support of its claim to a foreign origin. Its inherent qualities, however, are truly British; and though the idiom of its language is not strictly vernacular, the principles which it inculcates, the sentiments which it breathes, and the wishes which it expresses, are of genuine home growth. Objects, like those which this publication seeks to promote, must at all times, and particularly in the present, lay claim to the highest attention; hence it was that we devoted to the author's preceding tract a space rather disproportionate to its size,

size, and that we feel disposed to make a similar deviation in favour of that which now lies before us. In this, as in his other performance, many facts occur which we have not the means of authenticating: but, on the whole, we find him here much more within our cognizance, and we are not altogether without criteria by which we can try his plans and measures. With regard to the importance of the views to which these are to be directed, no doubt can be entertained: but whether they are to be pursued to the extent here proposed, or whether, if so followed up, they would be productive of all the effects here promised, we shall leave to be decided by judges more competent than we are. Of the plans themselves, we think less favourably than of the ends intended to be attained by them; they shew too much of the sanguine confident projector, and betray a want of acquaintance with our existing institutions: but their infelicity little affects the general value of the writer's lucubrations, which disclose a variety of novel facts, furnish hints which eminently merit regard, and abound in such reflections on subjects of high national importance, as cannot fail to excite in intelligent minds useful trains of thought, to direct the inquiries of the less informed, and to rouse the desire of knowlege in the ignorant. His present labours do not yield in interest and value to those which we have already noticed; and we are anxious to draw to them the attention of the public, more particularly of those who study our national interests. We wish most devoutly that other persons equally capable, and equally well informed, would employ their faculties in the same way; since discussions of this kind could not fail to meliorate our internal administration, and to improve our system of external policy.

The preface developes the honourable and patriotic motive from which this publication originated; and the passage in which it is stated contains striking and weighty observations on a very important and much litigated subject:

'I was not one of those who considered the late treaty of 1801 as the death warrant of Old England. A Briton, while he is alive himself, must not believe that any warrant against his country can be executed. But in the arrangement of Amiens, it was impossible not to see, that the honour, rank and safety of the British empire was compromised: by that so called peace, Great Britain was certainly left in a position which no born Englishman could have foreseen, and which every man attached to his country will for ever regret! Insulated by nature from the continental world, that singular compact detached us from all that was respectable in the political world; those sovereigns and princes who had sacrificed their properties and risked their lives in our service abandoned, and (what still more astonished the world) to see England legalize the rebellion, regicide and atrocious assassinations of a French banditti, and then

ratify the usurpations of its chiefs, made all nations forsake our cause, despise our principles, and become inimical to our interests. By the extraordinary concessions which the definitive treaty imposed upon the British government, every one of our remaining settlements abroad, as well as the united kingdom itself, were laid open, exposed and left uncovered to the enterprises of a daring enemy, who by that very deed tripled his own strength. Another remarkable feature in our convention with Bonaparte was, that after an eight years war of victory, after being in legal possession of all the sources of naval power and commercial wealth in the world, and able to maintain them, we quitted the field with no other trophy nor acquisition than a burden of some hundred millions sterling added to the public debt. This last circumstance appeared to me a most serious consideration; it threatened the noble pride and patriotic zeal of the nation with extinction. To maintain the public spirit of a people, nothing is more efficacious than to perpetuate amongst them the memory of their military exploits, especially if refreshed by the enjoyment of the fruits of their valour: but where the veteran is suffered to die in neglected obscurity, and no monument of his actions preserved to warm the bosom of his survivors, *there* laurels never flourish; honours to be won by the soldier's blood are considered not worth the price; military glory becomes an obsolete phrase; and patriotism sours into disgust, avarice and venality. No expense of blood and treasure will ever diminish the ardour or slacken the efforts of an independent nation that is guided by intelligent, brave and moral rulers; but, the price of their blood undervalued, and the fruits of their efforts thrown away, the most energetic people on the globe will soon fall into that political indifference which has made so many states the easy prey of cunning and watchful neighbours.

'To ward off the effects and to prevent the evil consequences which it was predicted the peace of Amiens had entailed upon the British kingdoms, or what is the same thing, to fortify the empire against the accumulated strength and wanton audacity of the French republic; to alleviate the burden of the public expense of the state, and to maintain the natural energy, the zeal and morality of the nation; a bold system of national improvement appeared to me as the most eligible measure that could be adopted. It was this consideration that induced me to draw up the following plan for the encouragement of the British fisheries, with remarks on the general improvement of the united kingdom.'

This language indirectly conveys strong censure on the authors of this ill-fated compact; and indeed it cannot be denied that the hollow and short-lived truce was too dearly purchased by surrenders so important, which should only have been made to secure a peace of some permanence.

Our agriculture is the first object of national improvement which the author discusses, and in treating of which he is the least successful. In order to perfect this branch of our economy, he proposes that two boards should be formed, to be

be invested with very large powers, which would materially interfere with those that are now lodged with our legislative and executive authorities. Of these establishments, it is sufficient for us to say that they appear utterly impracticable. Perhaps, it is chiefly by silent and indirect means that this important department of national industry is to be ameliorated: but something seems wanting to render markets more equable, and the tenure of the cultivator less precarious; to increase the incitements to individual activity, and to remove whatever operates as a check on it.

It is a great object with the author to augment the produce of husbandry; while, by a strange inconsistency, and in opposition to all writers on public economy, he inveighs vehemently against the exportation of corn. He also pleads in favour of the exploded system of public granaries.

Dissenting as we do from many of the opinions maintained by the author in this part of his work, we agree with him in thinking that it would be wise and politic to hold in higher estimation the class of cultivators. He justly observes:

'Men of talents and property endeavour to attach themselves to that profession which is most respected by the public. In the monarchies of continental Europe, as well as in our modern republics, to enjoy any sort of consideration in society, a man must belong either to the military or civil functions of the state, that is, he must be a soldier, secretary, or some such public servant: tradesmen and mechanics are despised; and the husbandman is ranked after his horse. In Great Britain, although that consideration be not shewn to the military which they ought to enjoy in every country where their service is necessary, yet the tillers of the ground are looked upon as the lowest class of the community: merchant-clerks, counter-keepers, and even livery footmen, custom-house and excise-officers, take the lead of the honest ploughman. This prejudice is humiliating to a great majority of our most useful and loyal citizens; it should therefore be done away.'

On the subject of the fisheries, which is the head of improvement most laboured and best elucidated, the author appears to possess very ample information. He satisfactorily sketches the rise, progress, decline, and present state of these institutions among various nations, and describes at some length the manner in which they are actually conducted. The antient Scandinavian fisheries, he remarks, were the nurseries in which were formed those piratical hordes, which were so long the terror and the scourge of the South of Europe. The introduction of Christianity, with its concomitant arts, and especially that of agriculture, rendering these rude tribes less dependent on their former sources of subsistence, occasioned a great relaxation in the

pursuit

pursuit of them. The union of Colmar, and the incessant agitations which followed it, reduced them to the lowest state, whence they have but imperfectly emerged. Denmark, we are told, 'although it possesses in exclusive sovereignty the islands of Iceland, Fero, and the Greenland coast of Davis straits, with the immense coast of Norway, yet the fish sold to foreigners and exported from the Danish dominions, do not, upon an average of the last fifty years, exceed the amount of L. 120,000 sterling annually.'

When the Dutch lost their naval preponderancy, the fisheries became unsafe speculations, and were solely on that account abandoned. Such has been their decline of late among that people, that 'upon an average of the last 40 years of peace, the whole of the Dutch fisheries on the coasts of Greenland, Iceland, Shetland, and in the North sea, did not employ above 27,000 tons of shipping annually, (instead of 150,000 tons as in the 16th century); the produce during these forty years has scarcely been sufficient for the internal consumption of the country.' The author therefore regards the present moment as propitious to adventures in this line; and he calculates that, if his hints are improved, and his counsels followed, Great Britain may annually take and cure more than half a million of barrels of cod-fish, and three times that number of barrels of herrings: the markets for which are here pointed out. Doubtless, the field which he assigns for these adventures is ample enough to yield the immense return on which he reckons; for according to him,

'By the geographical situation of the British islands, the fisheries in the northern seas are our hereditary patrimony. Sovereign of the northern part of America—from Sable cape in Nova Scotia, by Scilly point and Orfordness to Heilgeland, and from that line to the frozen ocean, the sea is under our immediate jurisdiction; and the fish contained in it, allowing the natural rights of Denmark, is our property. No other nation has any more legal pretension to fish north of that line, than we have to fish in the Zuyder Zee or in the Gulph of Bothnia.

'Without entering into a calculation upon the annual value of every cubic acre of the sea that surrounds the British coasts, I may venture to affirm, that the space which I have here mentioned, as being under the natural jurisdiction of Great Britain, is in point of produce the most valuable division of the ocean. Nature, for her own wise reasons, has made these northern seas the native climate and habitation of the most numerous and valuable tribes of the fish kind. This grand nursery seems to have been from the earliest times a principal support to those nations that inhabited the sea coasts of northern Europe.'

Among the stations for taking the cod-fish, he considers those of Peterhead, and of the Shetland and Lewis islands, as the most eligible *.

Of the herring fishery, he says: 'I recommend it to be carried on in the deep sea, in proper vessels built for that purpose. I would likewise recommend, to fish on the skirts of the great herring shoals rather than on the middle of them; the fish that precede and as it were accompany the shoal, are infinitely better than those that are crammed into it.'

He suggests various hints for the improvement of the Greenland whale fishery, of which he gives a very detailed account: but he seems to consider that which we carry on in the Southern sea as entirely dependent on our ability to make head against France; and this also will, in his opinion, be determined by the degree in which we cultivate the fisheries of which he has treated. If these are followed up with spirit and judgment, they will employ 50,000 sailors, cause foreign wealth to flow into the country, animate our internal industry, and materially add to our stock of wholesome and grateful food; while indirectly they will prove the bulwark of our political rank, and of our national independence. He proposes that these fisheries should be placed under the management of a corporation, which should be enabled to raise a capital of two millions and a half; and his own views of the valuable ends to be attained by such an institution are thus disclosed:

'The several nations of Europe have long been obliged to maintain their respective ranks by military force; the present state of the civilized world holds out no visible prospect that any other sort of security is yet likely to be effectual; on the contrary, whoever possesses the greatest proportion of military force assumes an authority to legislate for his neighbours. Great Britain is now an insulated state; other nations seem to take no interest in her prosperity; she must stand by her own strength; and to stand, the basis of the empire must be fortified within by internal improvement, and they must be kept covered without by a preponderant marine. I have said before, that the invasion of Great Britain and Ireland is determined upon by the rulers of France, they believe it to be easily practicable, and as soon as they can muster a sufficient number of light vessels and row-boats to carry over an army, they will make an attempt; whether we be then at war or in peace with France matters not, the probability of subjugating the British nation is at all times a legitimate cause for quarrel. To frustrate and set at defiance this project of our neigh-

* We are happy to observe that a cod-fishery off the coast of Ireland, on which subject we have lately introduced several pamphlets to our readers, is begun to be established; and that cargoes have already reached the London market.

bours,

bours, it is high time that the British government were preparing efficacious means: as is already observed, our heavy navy, however numerous, cannot prevent an invasion by row-boats; but 50,000 British sailors daily employed in our fisheries in the British seas, if they did not prevent an attempt being made, they would at all events render its success for ever impossible. The British fishery corporation should therefore be so organized as to form a permanent part of our national defence. The men employed in the fisheries would contribute to the defence and security of the empire in more respects than one; in active occupation they would always be healthy, moral and brave; the fruits of their labour would in the mean time be rearing up another generation of vigorous youths to succeed them; catching fish in the British seas, they would appear equally formidable to our neighbours as if they were on board the royal navy at Spithead, in reality they would be more formidable to the enemy, and more useful to their country; and whatever the general success of the cod and herring fisheries might be, their produce would certainly add a considerable increase to the annual stock of the necessaries of life. Upon an abundance of the necessaries of common life, depends much of our national strength: our enemies look for a scarcity of provisions in England with the most sanguine anxiety; and the moment that such a disaster takes place we shall have to fight their legions upon legions at our own gates To be obliged to wage a defensive war is a terrible consideration; to prevent the possibility of such a misfortune no sacrifice can be too great. Fifty thousand British sailors, daily employed in the British fisheries, would prevent it; by their industry provisions would always be plenty; their valour would bridle the audacity and confound the plots of our boasting foes; and they would form an effectual circumvallation around the kingdom *; that is, a grand national fishery raised and extended hand in hand with a spirited improvement of the other natural sources of our public strength, would prevent for ever the possibility of invasion or danger from abroad; and would likewise secure and consolidate the domestic peace and prosperity of the nation.'

It is a circumstance very much in favour of the establishments here recommended, that they existed in Holland for two hundred and fifty years, to as great an extent as that which this author proposes; and, if this fact be duly considered, they cannot be regarded as chimerical projects, the creatures of a heated brain.

We do not find fault with the sentiment repeated in the following extract, and which is frequently inculcated by the author in the present and in his former work: but we could have

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' * Vessels built for the cod and herring fisheries might be so constructed as to carry two or more guns each. In case of public danger 1000 or 1200 such vessels, being always equipt and ready, would form a flottilla far superior to any armament of that sort which our neighbours could ever send to sea.'

wished that he had informed the country more precisely how it can act up to his advice:

'We all know (he says) that certain powers do intend to invade this country, and perhaps sooner than the public expect, if efficacious measures are not taken to frustrate their views. That we should beat an invading army is very probable; I hope we would to a certainty beat any force that could be brought against us; but an army once landed, to beat it could not fail to cost us a very considerable expence of both men and property. For my own part there is no sacrifice that I would not advise the nation to make, rather than risk the most distant possibility of a defensive war on our own territories. I do not mean that we should sacrifice any thing to an enemy, that would render our subjugation more and more certain, but if necessary we should expend the moveable property of the kingdom, and our dearest blood, rather than suffer the independence of the state to become problematical. When a nation tamely waits till it be forced to fight on its own territories, the independence of the state will be very uncertain.'

The writer is of opinion that the attention of the national councils, and of public men in this country, is generally misdirected; and that the few public works, of which it can boast, furnish the melancholy proof of this charge:

'The British parliament has, in the space of these last hundred years, voted away upwards of five hundred millions of British money, without having thereby added an inch of territory to the empire, a hundred pounds to the public revenue, nor an atom to our political rank.—

'If we have during the last century extended our maritime trade, and increased our manufactures, these have been done by improving the sources we already possessed, for we have made no useful acquisitions; we have expended 500 millions merely to defend what we had; and in a political sense, we are not at this time so powerful as we were a hundred years ago. Let us now, insead of expending millions upon millions in cultivating the colonies of France and of her dependents, only lay out, upon the best of all security, and on certain interest, that is upon the improvement of the soil of the united kingdom, and to extend and improve the British fisheries, only *eight millions sterling*, and in less than twenty years we shall double the internal strength of the state, and affirm the permanency of the empire.'

The author's lucubrations on the threatened invasion are divided into two parts; the one bearing the date of July 1803, and the other that of September. Among the former invasions of this country, he finds nothing which so strongly resembles that which is at present projected, as the maritime part of the expedition of the Prince of Orange; and he recommends it to government to peruse the accounts of the measures and manœuvres which preceded the sailing of that armament, as not dissimilar to those which are now practised against us. He will

will not admit the claims to originality affected by the *héros de fortune*; 'the politics, as well as the court of St. Cloude, are merely ostentatious mimicries of those of Versailles: to point at one ball and hit another, was the game of the French monarchy, of the revolution, and it is Bonaparte's play likewise. The real objects of the consul's armaments are Ireland and our finances. These he believes possible, and he will use all the means he commands to reduce the one and ruin the other.'

We may almost suspect that none of Bonaparte's counsellors are so well acquainted with his projects, as the details here confidently given manifest the author to be:

'With the Schelde division of his armament, the consul general intends to menace London on the coast of Essex, where he will threaten to land 40,000 men; with the Cherbourg division he will threaten Dorset and Devonshire, at the same time ordering a squadron round the land's end to menace with an invasion Somersetshire and the neighbouring country. With his centre, or Boulogne division, he will attempt to land at Rye, or between there and Pevensey, with, as will be given out, 100,000 men. Such is the ostensible part of Bonaparte's plan; and while he is employing the powers of France, the vigilance and gold of England, and the attention of Europe, with his manœuvres for its execution, he will endeavour to land 40,000 of his best veteran troops in Ireland.

'In the opinion of the consul, the possession of Ireland is the shortest and most certain preliminary step towards the conquest of England. If he can land the army that he has designed for Ireland, he is perfectly convinced that the immediate submission of that country would be the result; he has already upon his muster-roll upwards of two hundred thousand sturdy Irishmen whom he believes ready to join his standard; and he has numbers of people who assure him, that every man able to carry arms in Ireland, will instantaneously, and with that enthusiasm which vengeance inspires, cordially join and co-operate with the armies of the republic to conquer Great Britain.

'The real plan of Bonaparte at this moment, is therefore the invasion of Ireland from Brest. To facilitate that expedition he will certainly attempt to invade England, but not with the force we read of in his daily newspapers, nor with hopes of any conspicuous success. But should he succeed in Ireland, he will then put himself at the head of two hundred thousand, or perhaps more men, and make a serious effort to land on the coast of Sussex: that coast, or between Rye and Pevensey, is the point on which the consul believes an invasion might be made with the greatest probability of success.'

Speaking of the Consul's channel flotillas, the author says; 'he cannot, for these eight months to come, have them prepared, so as to be in any wise formidable to us: that is, except some ridiculous panic unnerve the nation, or an unpardonable neglect expose the coasts uncovered, all the force that France

can send across the channel before August next year, cannot be such as to create any serious cause of alarm in England. Usurpers have no other security for their crowns but success: to Bonaparte, a check would be imminently dangerous, and a defeat, especially if it happened in England, would be his inevitable ruin. He cannot therefore risk his reputation, the only support of his throne, but upon such an expedition, which if we do our duty he will never be able to organize.' This, he observes, affords no ground for a relaxation of vigilance and preparation on the part of the British government.

The writer assures us that the wishes of neighbouring powers are strongly on our side; and that, if the Corsican hero be bold enough to invade our territory, Europe fully expects that Britain will triumph in the contest, and retaliate on the chief and his legions the wrongs of nations. This is pleasing intelligence; to which we should not for a moment have hesitated to give credit, had we not heard of very different accounts having been transmitted through various channels. We trust that time, the firm attitude which we have assumed, and the violences of the chief consul, have wrought a change in our favour, and that the assurances of the author are worthy of reliance.

'Should the chief consul really attempt to invade Great Britain with the force that he pretends to be preparing for that expedition, the rest of Europe will rejoice at the news of his landing. Every sovereign on the continent knows, that until the arms of Bonaparte meet with a check and be beaten, no legitimate government can be in safety, nor can any country be considered as enjoying peace and independency; amongst themselves to check his career seems difficult, not from any superiority on the part of the French arms, but owing to some malignant demon of discord that seems to have destroyed mutual confidence, and to have inspired all governments with a spirit of counter action towards one another; but once landed with his legions in England, there is not an European but firmly believes that there, the consul, the consulate, (and perhaps the republic) would find the well merited fruits of all their toil, and leave the world at rest. "*Conjurationem, eodem momento, et conjuratos submersit.*"—

'Upon the great question of Britain's political existence, every sovereign in Europe considers the interests of his own country as interwoven with the security of the British empire. No prince was ever more revered by foreign powers than George III. is at this moment; and never had Great Britain such an opportunity to consolidate her empire upon her own powers, and to secure for ever the cordial friendship of all other nations, as she has at this propitious juncture.'

There is something so original and liberal in the scheme of external policy suggested by the author, that it is but justice to

to him to submit it to the reader in his own words. Speaking of this country, he says;

'Having it in her power, it is a duty she owes to the rest of the world to bridle this audacious republic of military adventurers; and it is likewise her duty, her interest, and it would be her everlasting glory, to extend the benefits of maritime commerce, upon the most liberal principles, to every state and nation that borders on the sea. If we except France, that wishes to have the sea as well as the land to herself, every nation that have any interest upon the ocean are our friends and wellwishers; and as their interests in maritime affairs increase, so doth necessarily their goodwill and attachment to us. Jealousy in trade is a miserable consideration; it is detrimental to the interests of all parties, and does good to no body. When a nation is already by usurpation and conquest become too formidable to other states, and still endeavours by new acquisitions of colonies and empires abroad, to subjugate all her neighbours at home, it is indeed time to be jealous, and to set barriers to her projects; but France is the only nation in Europe, or out of it, that ever can become in anywise formidable to either the commerce or maritime power of Great Britain. By encouraging the maritime trade and naval power of such other states as are fairly independent of the republic, we fortify ourselves and promote our own commercial interests.'

'I have no hesitation in saying, that if Great Britain will preserve her independency, she must secure her maritime empire upon a basis of a more solid nature than ships and manufactures. At this propitious moment the British government has two legal choices; these are, to put the nation in possession of sources sufficient to maintain for ever a navy superior to the present or future maritime force of the world; or to distribute the sources of maritime trade in such a manner, that France (the only state that ever can be our rival on the ocean) shall never be able, neither by her own force, nor through her continental influence over other powers, to raise or combine a navy equal to that of Great Britain. Our present possessions, *were they all secure*, are not near to the standard which our relative situation between Europe and America requires. Besides, *possessions that are, or that can ever become dependent upon the good will of other states are not secure.*'

If we are united among ourselves, he assures us that the physical and moral powers of the French republic can never be a subject of uneasiness to us.

'It is true, the public spirit of continental Europe is broken down and perverted to a most alarming degree; so much so, that were Bonaparte's night-cap now carried about, if only upon the end of a broom-stick, it would inspire terror and submission; but Britons are yet far above the level of such dastard and venal cowardice. The three-coloured cockade legions are by no means superior to other men; wherever they have been fairly tried they have been found as little as the least of their antagonists: the republican chiefs do not even pretend to confide in their valour; on the contrary, they rely upon that which in all ages has ever been considered the most

despicable resource, their numbers, and our want of skill. These heroes have the base absurdity to menace the world, not with their soldiers, but with their hordes! Are Englishmen to be alarmed by cowards of French republicans? Every honest hearted Briton will hear with a smile of indifference the bravados of chiefs capable of boasting in what any other military man of honour would consider mean and degrading.'—

'Upon the whole, the dangers that we have to apprehend from an invasion of Frenchmen at this moment, are by no means such as to warrant any serious alarm in the country: if off our guard, however, they might do much mischief: but otherwise their efforts will be easily rendered abortive. The genius and politics of Bonaparte are of a first rate kind where he meets with ignorance, venality, and discord; his ragged legions are formidable to timidity and cowardice; but in themselves, neither his talents nor their valour will ever be feared, nor esteemed in England. As I have said before, the present is the most propitious juncture that ever occurred in the history of Great Britain: we have it in our power, not only to frustrate the present projects of France upon these kingdoms, but likewise to deprive her of the means of ever again attempting to molest our peace. Should it be thought necessary, we can confine the republic with all her dependent allies to Europe for ever; we may raise and attach to our trident all the other maritime states of the world, not as vassals and dependents, but as cordial friends, whose national interests may be closely connected with our prosperity: and we may now consolidate the powers and affirm the integrity of the British empire upon a broad and lasting basis.'

He strongly reprobates the plan of erecting military works around London, and that of entrusting the conduct of our armed force to a military committee. These are measures, he says, which Bonaparte would wish us to adopt. 'What the French are apprehensive of meeting with on the British shores, are, light vessels armed with heavy metal, small works at proper stations, inundations where such are possible, trenches and palisades on the great roads, passes and avenues; these they know, if well distributed and bravely defended, would for ever baffle the efforts of the consulate with all their Gallic slaves.'

The positions advanced in the following passages are so important and consoling, as to induce us to lay them before the reader, clothed in the confident language of the author himself:

'To shut the ports of Europe against the British flag, was the pitiful invention of the ignorant agents of a still more ignorant directory; and the same measure being adopted by Bonaparte, strongly illustrates the profundity of that general's mercantile politics.—But could it be presumed that every port and creek between Nova Zembla and Madagascar were to be shut against the British flag, what benefit could that produce to France, or what inconvenience would it create to Great Britain? Except the British government should think proper to blockade those ports herself, our commerce would suffer no diminution:

minution: on the contrary, in all such cases the demand for British manufactures increases immensely As if from the novelty of the circumstance, wherever our flag is now and then shut out, foreigners supply its place with extraordinary activity; add to this, that war opens the barriers of all countries, especially those of France, to mercantile speculation; and that, when the French armies are without the frontiers of France, a great part of the pillage they gather is paid for English wares; for, from the general in chief to the youngest conscript, they have a certain vanity in buying whatever is English. So that in fact, by shutting the ports of Europe against the British flag, Bonaparte opens the markets of Europe, especially those of France, to the manufactures of Great Britain.'

He disapproves the blockade of the Elbe and Weser, and advises government to declare all sea ports, and maritime flags, except those of the enemy, open and free; in which case, 'our trade would double, our friends encrease, and our manufactures would flourish to the confusion of the consulate. If Bonaparte should still attempt to debar the produce of Great Britain and her colonies from continental Europe, he would be obliged to quarrel with the neutral states himself, instead of making us quarrel with them.' The object here recommended is doubtless above all price, but how is it to be effected? The author repeatedly urges it on us, but, as we have already stated, no where instructs us in the mode by which it may be executed. He does indeed elsewhere observe, that 'situated as we are, some grand blow announced to the nation would do much good; it would invigorate the public mind and dispel all sort of anxiety; it would inspire our friends with confidence in our measures, and make them approach us more cordially:' but of what nature this grand blow is to be, he has no where given the slightest information.—He concludes with recommending

'That the OBJECTS of the war, and the CONDITIONS on which ALONE peace will be made, should be laid before the public and the world. Were the objects found to be such as could interest and affirm the public confidence of the nation, government would be instantaneously enabled to realize them: dangers, difficulties, the powers of the enemy, were they seconded by the rest of the world, would vanish and disappear before the noble ardour with which such a measure would inspire the British public. If the conditions offered for peace were loyal, liberal, and fair, and such as the world could consider a sufficient pledge for the stability of the British empire, every legitimate sovereign, prince, and state, would again feel their own worth; they would shake off the bonds of Gallican oppression, and rally around the Christian standard of our most venerated and virtuous monarch, GEORGE III.'

For the short paragraph which immediately follows the above extract, and which closes this head of the work, nothing that

before

before occurs sufficiently prepares us; and we own that it would appall us, were we to learn that the extravagant sentiment here stated was that on which our rulers acted, in the conduct of the portentous contest in which we are engaged. 'But,' says the writer, 'the safety of the monarchy, the dignity of the crown, the honour of the British nation, and the sentiments of its sovereign, cannot now allow the pretensions, propositions, or even the submission of rebels, assassins, and usurpers, to be either received, heard, or answered.'

Many of the author's concluding remarks on the campaign in Hanover are not less curious than those which we have noticed: but we have already exceeded our limits, and we must content ourselves with giving only one specimen of them.

'It is very certain, that in planing the invasion of Hanover, Bonaparte calculated upon making that country the seat of the war. He thought he would draw over and occupy there any number of British troops he might think proper; that he would thereby exhaust the British army, drain the treasury, and fatigue the people of England.

'Should Great Britain send no army to the continent of Europe, nor yet be alarmed at the thousands and four thousands of paper gunboats painted in the Moniteur, the consul will be much disappointed: all his plans will be useless, his speculations will be frustrated; and, if our armies be otherwise well employed, the consulate itself may become bankrupt.'

In dismissing this work, we shall only add that, if the judgment of the author should not always be followed, his information appears to be extensive, though we do not presume to ascertain how far it may be authentic; if he be rather sanguine and confident, it cannot be denied that he possesses a vigorous and energetic mind; and if he be a harsh and ungracious counsellor, his ardent patriotism, his honest zeal, his British prepossessions and partialities, dispose us to overlook his rudeness, and to lend him willing attention.

Jo.

ART. VII. *Philosophical Transactions of the Royal Society of London, for the Year* 1803. Part I. 4to. sewed. Nicol.

MATHEMATICS *and* ASTRONOMY.

The Bakerian Lecture. Observations on the Quantity of Horizontal Refraction; with a Method of measuring the Dip at Sea. By Wm. Hyde Wollaston, M.D. F.R.S.

IN the Transactions for the year 1800, the author of this paper assigned mathematically and physically the cause of the double and inverted images of objects near the level of land or water; and to establish farther the justness of his explanation,

planation, he made some very simple but ingenious experiments, by which appearances similar to those seen in nature might be exhibited. Connected with this subject, are the researches of the present memoir. Investigating on the ground of speculation the cause of a phænomenon, Dr. W. brought also into his view the practical benefit which nautical astronomy might derive from a knowlege of the laws of that phænomenon. The refractions near the surface of the sea must affect the dip of the apparent horizon; and if any law could be established between the quantity of refraction and the temperature of the air, then the correction of the dip might be known by the aid of meteorological instruments. The investigations of Dr. W., however, as far as they go, indicate no law of dependence between the temperature and the quantity of refraction: but the experiments themselves are interesting, and similar trials may easily be made. Those of the author were performed on the river Thames, in consequence of his having once accidentally observed that the oars of barges approaching him appeared bent in various degrees, according to their distance.

'When I reflected (says the Doctor) upon the causes which were probably instrumental in the production of these phenomena, they appeared referrible to difference of temperature alone. After a succession of weather so hot that the thermometer, during one month preceding, had been 12 times above 80°, and on an average of the month at 68°, the evening of that day (August 22, 1800) was unusually cold, the thermometer being 55°. The water might be supposed to retain the temperature it had acquired during a few weeks preceding, and, by warming the stratum of air immediately contiguous to it, might cause a diminution of its refractive density, sufficient to effect this inverted curvature of the rays of light, in the manner formerly explained. As I was at that time unprovided with instruments of any kind, I had it not in my power to estimate the quantity of refraction, or temperatures; and can only say that, to my hand, the water felt in an uncommon degree warmer than the air.

'Being thus furnished with an unexpected field for observation, I from that time took such opportunities as similar changes of the weather afforded me, of examining and measuring the quantities of refraction that might be discovered by the same means over another part of the river, that I found most suited to my convenience.

'The situation from which the greater part of my observations were made, was at the SE corner of Somerset house. The view from this spot extends under Blackfriars bridge, towards London bridge, upwards of a mile in length, and in the opposite direction through Westminster bridge, which is three quarters of a mile distant.'

Dr. W. then gives a table of 16 observations, in which are registered the quantities of refraction, the corresponding tem-

peratures of the air and water, the cold produced by evaporation, and the state of the hygrometer.

'From a review (says Dr. W.) of the preceding Table, it will be found, upon the whole, that when the water is warmer than the air, some increase of depression of the horizon may be expected; but that its quantity will be greatly influenced, and in general diminished, by dryness of the atmosphere.'

Although, however, no easy law can be found to exist between the quantity of refraction and the contemporaneous temperature, and therefore no calculated correction can be offered for the dip of the apparent horizon; yet it is clear that a correction ought to be made; and Dr. W. shews how it may be practically effected by Hadley's quadrant. We relate his method in his own words:

'By the back observation, the whole vertical angle between any two opposite points of the horizon may be measured at once, either before or after taking an altitude. Half the excess of this angle above 180°, should of course be the dip required.

'But, if it be doubtful whether the instrument is duly adjusted, a second observation becomes necessary. The instrument must be reversed, and, if the apparent deficiency of the opposite angle from 180° be not equal to the excess before obtained, the index error may then be corrected accordingly; and, since the want of adjustment, either of the glasses at right angles to the plane of the instrument, or of the line of sight parallel to it, will affect both the larger and smaller angle very nearly in an equal degree, the ½ part of their difference will be extremely near the truth, and the errors arising from want of those adjustments may with safety be neglected.

'This method of correcting the index error for the back observation at sea, was many years since recommended by Mr. LUDLAM*; yet I do not find that it has been noticed by subsequent writers on that subject, or suggested by any one for determining the dip; but I can discover no reason for which it could be rejected as fallacious, and I should hope that in practice it would be found convenient, since in theory it appears to be effectual.

'The most obvious objection to this, as well as to Mr. HUDDART's method, is the possibility that the refraction may be in some measure different in opposite points of the horizon at the same time. When land is at no great distance, such an inequality may be found to occur; but, upon the surface of the ocean in general, any partial variations of temperature can rarely be supposed to exist; and it is probable, that under any circumstances, the difference will not bear any considerable proportion to the whole refraction; nor can it be thought a sufficient reason for rejecting one correction proposed, that there may yet remain other smaller errors, to which all methods are equally liable, but which it is not the object of the present dissertation to rectify.'

'* Directions for the Use of HADLEY's Quadrant, 1771. § 82, p. 56.'

After

After this account of the present paper, it is superfluous to recommend it to the notice of the philosophic inquirer.

Observations of the Transit of Mercury over the Disk of the Sun: to which is added, an Investigation of the Causes which often prevent the proper Action of Mirrors. By Wm. Herschell, LL.D. F.R.S.—These observations contain the notice of all the phænomena which attended the passage of Mercury over the Sun's disk: but they occupy only a small part of the memoir, which is chiefly occupied by the remarks concerning the action of mirrors. These are stated in Dr. H.'s usual journal form; and from them it is inferred that neither moist nor moderately foggy weather is unfavourable to observations: that frosts also are not unfavourable, but only the beginnings and ends of frosts: in fine, Dr. H. concludes that it is the change of temperature solely which causes disturbed vision; and that telescopes will act properly when they are of the same temperature as the circumambient air. This conclusion is made more satisactory by experiments; as, for example, he placed heated bodies near his speculums, and the consequences invariably were confused images. He does not propose any certain remedies for the suspension of the proper action of mirrors, yet such are desirable, since it may be necessary to make observations during the changes of temperature.—It is evident, from what has been said, that a telescope carried from a warm room into the cold air is unfit for immediate use. R.W.

Chemistry, Medicine, Mineralogy, &c.

A Chemical Analysis of some Calamines. By James Smithson, Esq. F.R.S.—Calamines have been considered by many as simple calces of zinc, containing no carbonic acid, and owing their occasional effervescence with acids to an accidental admixture of carbonate of lime: but the present author's experiments on different species of them shew, that the analysis of these substances has been hitherto little understood. His observations were directed to calamines from Bleyberg in Carinthia, Somersetshire, and Derbyshire, and to the electrical calamine.—The first species contained

Calx of lime - -	0.714
Carbonic acid - -	0.135
Water - - -	0.151
	1.000

besides a minute portion of the carbonates of lead and lime, which seemed to be an accidental admixture. The calamine from Somersetshire consisted of

Carbonic acid - -	0.352
Calx of lime - -	0.648
	1.000

The Derbyshire calamine, of

Carbonic acid - -	0.348
Calx of lime - -	0.652
	1.000

Electrical calamine, from Regbania in Hungary, afforded

Quartz - -	0.250
Calx of lime -	0.683
Water - -	0.044
	0.977
Loss - -	0.023
	1.000

In the electrical calamine, the author conceives that the water, from the smallness of its quantity, is not an essential ingredient, and may therefore be disregarded: but, in the first mentioned, (that from Bleyberg,) he is induced to conclude that, as there is too large a quantity of water to exist in the state of mere moisture or dampness, and too small a quantity of carbonic acid to saturate the whole of the calx of zinc which it contained, a more intimate combination subsists between the water and zinc than has hitherto been suspected. This peculiar compound, he thinks, may with propriety be termed *hydrate of lime;* and, from calculations, he supposes that it consists of calx of zinc $\frac{3}{4}$, and water or rather ice $\frac{1}{4}$. Hence he infers that the Bleyberg calamine is composed of

Carbonate of zinc -	$\frac{2}{5}$
Hydrate of zinc -	$\frac{3}{5}$

Calculating from some of the experiments made in this paper, Mr. Smithson considers vitriol of zinc in an acid state, or freed from any portion of combined water, as consisting of exactly equal parts of lime and vitriolic acid.

Experiments on the Quantity of Gases absorbed by Water, at different Temperatures, and under different Pressures. By Mr. Wm. Henry.—The first section of this paper is occupied by experiments on the quantity of gases absorbed by water at the usual pressure of the atmosphere. The results were considerably affected by the temperature at which the experiments were made; and in the trials with carbonic acid gas, the absorption seemed (as Mr. Dalton suggested to the author) to be always

always materially influenced by the proportion of common air contained in the unabsorbed residuum. A certain quantity of common air always exists in carbonic acid gas, or is communicated to it by the water to be impregnated; notwithstanding any degree of care which may have been taken to free the latter from air by long continued boiling, or by exposure to the air-pump. In order, therefore, to obtain the highest degree of saturation, it is necessary that a large proportion of carbonic acid gas should be employed, by which means the quantity of common air in the unabsorbed residuum will be proportionally small. The trials with the less absorbable gases were made with water at one temperature, viz. 60°.

The second section treats on the influence of pressure in promoting the absorption of gases; and the author's deductions are these:

'The results of a series of at least fifty experiments, on carbonic acid, sulphuretted hydrogen gas, nitrous oxide, oxygenous and azotic gases, with the above apparatus, establish the following general law: *that, under equal circumstances of temperature, water takes up, in all cases, the same volume of condensed gas as of gas under ordinary pressure.* But, as the spaces occupied by every gas are inversely as the compressing force, it follows, *that water takes up, of gas condensed by one, two, or more additional atmospheres, a quantity which ordinarily compressed, would be equal to twice, thrice, &c. the volume absorbed under the common pressure of the atmosphere.* By frequent repetition of the experiments, I obtained results differing a little from the general principle above stated; but, for all practical purposes, I apprehend, the law has been announced with sufficient accuracy*.'

Mr. H. has given a description, illustrated by a plate, of the apparatus which he used in his experiments.

Observations on the chemical Nature of the Humours of the Eye. By Richard Chenevix, Esq., F.R.S. and M.R.I.A.—The subject of this communication is illustrated by experiments which were principally made on the eyes of sheep. The aqueous humour was found by the author to be of the specific gravity of 10090, and to be composed of water, albumen, gelatine, and muriate of soda. The vitreous humour in no way differed, either in specific gravity or chemical nature, from the aqueous. The specific gravity of the crystalline was 11000. It contained a smaller proportion of water, but a much larger of

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'* That the facts did not, with invariable accuracy, correspond to the law, was perhaps, in part, owing to the addition of only 28 inches of pressure; when, in strictness, 29½ should have been used, or twice the elevation of the mercury in the barometer, during each experiment.'

albumen

albumen and gelatine, than either the aqueous or the vitreous. Hence Mr. C. accounts for its greater liability to morbid alterations.

The humours of the human eye afforded the same results as the eyes of sheep: but, in the former, the specific gravity of the aqueous and vitreous humours was 10053, and of the crystalline 10790. In the eyes of oxen, those proportions were 10088 and 10765, and the density of the crystalline gradually increased from the circumference to the centre. In this part of his paper, Mr. C. remarks:

'What is particularly worthy of notice is, that the difference which appears to exist between the specific gravity of the aqueous or vitreous humour and that of the crystalline, is much greater in the human eye than in that of sheep, and less in the eye of the ox. Hence it would appear, that the difference between the density of the aqueous and vitreous humour and that of the crystalline, is in the inverse ratio of the diameter of the eye, taken from the cornea to the optic nerve. Should further experiments show this to be a universal law in nature, it will not be possible to deny that it is in some degree designed for the purpose of promoting distinct vision.'

Experiments and Observations on the various Alloys, on the specific Gravity, and on the comparative wear of Gold. Being the Substance of a Report made to the Right Hon. the Lords of the Committee of Privy Council, appointed to take into Consideration the State of the Coins of this Kingdom, and the present Establishment of His Majesty's Mint. By Charles Hatchett, Esq. F.R.S. —We have here a very elaborate memoir, containing a detail of the experiments made by the author and Mr. Cavendish, in consequence of their being requested by a Committee of the Privy Council to examine whether any of the defects really existed, which were supposed to give rise to the loss which the gold coin appeared to have sustained by wear, within certain periods. We learn, however, that, though these two gentlemen were associated in this important investigation, the whole of the experiments were made by the former: but Mr. Hatchett very handsomely acknowleges the important assistance which he derived both from the advice of Mr. Cavendish and from some inventions tending to facilitate the inquiry.

The questions to be principally decided were,

'1st. Whether very soft and ductile gold, or gold made as hard as is compatible with the process of coining, suffers the most by wear, under the various circumstances of friction to which coin is subjected in the course of circulation?

'2dly. Whether coin with a flat, smooth, and broad surface, wears less than coin which has certain protuberant parts raised above the ground or general level of the pieces?'

As

As the wear of coin, however, is 'an effect produced by mechanical causes, subject to be modified by certain physical properties, such as ductility and hardness, which vary in degree, according to the chemical effects produced by different metallic substances, when employed in certain propottions as alloys;' Mr. H. deems it proper

'First, to examine the effects which the various metals produce upon gold, when combined with it in given proportions, beginning with $\frac{1}{12}$, which is the standard proportion of alloy, and in certain cases gradually decreasing to $\frac{1}{4}$ of a grain in the ounce Troy, or $\frac{1}{1920}$ part of the mass.

'Secondly, to examine the specific gravity of gold differently alloyed, and the causes of certain variations to which it is liable.

'And, thirdly, to ascertain the effects of friction variously modified.'

The first section, therefore, treats *on the various alloys of Gold.*

Arsenic, in the state of vapor, readily combined with gold and rendered it brittle; even when the latter was raised only to a common red heat. When it was completely melted, and pure metallic arsenic added, the whole being rapidly stirred and poured out, the union of a portion of the latter was found to have taken place: but if even a very short delay intervened, the whole of the arsenic was volatilized.—Red hot plates of standard gold, the alloy of which was copper, when exposed to the fumes of arsenic in close vessels, were affected on the surface by this substance: but the compound was immediately dissolved, and formed a button at the bottom of the crucible, which was externally of a gold but internally of a grey colour.

Antimony, in the quantity of $\frac{1}{4}$ of a grain to an ounce, or $\frac{1}{1920}$ of the whole mass, was capable of destroying the ductility of gold; and, like arsenic, it could unite with that metal when applied to it in close or even in open vessels.

Zinc diminished the ductility of gold; it united with it in small portions, but was in general easily separated. The attraction seemed strongest when it was united to gold in its mixture with copper, under the form of brass.

Cobalt imparted a yellowish colour and slight brittleness to gold. *Bismuth*, under all circumstances, readily combined with it, and seemed to be most exceedingly injurious to its ductility.

The compound of *Manganese* and gold was slightly ductile, and had a coarse spongy and reddish grey fracture.

Lead in very small quantities proved extremely destructible othe ductility of gold, and when in a certain proportion rendered it as brittle as glass.

Tin was formerly supposed to produce nearly the same effect: but this idea is contradicted by the author's experiments, and those of Mr. Bingley, the Assay-master at the Mint. The conjecture is thought to have originated from the tin employed being blended with a minute portion of zinc, antimony, bismuth, or lead; all of which are eminent for diminishing the ductility of gold.

The same notion was extended to the effects of *Iron* on gold, but was also found to be erroneous. Gold becomes harder by this combination, but still remains ductile; the colour, a pale yellowish grey.

No means employed by the author could make *Emery* unite with gold.

The experiments with *Platina* it was not deemed necessary to prolong, because the nature of the combinations of gold with this metal is sufficiently well known. Gold made standard with platina was very ductile, and of a dusky white, like tarnished silver; and when to this compound another alloy of copper was added, the metal was less ductile, and of a pale dull yellow.

Pure *Copper*, when employed as an alloy for gold, did not much affect its ductility: but it was found that the former differed very materially in its properties, without its appearance being altered; and that the quantity necessary as an alloy sometimes rendered the compound brittle, particularly when the alloyed mass was cast in sand, instead of iron. Mr. H. imagines that this difference of properties was produced by a small addition of the ores of lead or antimony; and this opinion he is the more inclined to adopt, from ascertaining that a smaller quantity of these last metals, than is necessary to affect the appearance of copper, is able completely to destroy the ductility of gold,

The alloys of gold with pure *Silver* are so generally known, that they did not form one of the objects of this investigation.

In order to determine the comparative loss sustained by the volatilization or oxydation of various metallic substances, when added to gold during a state of fusion, and when the heat was continued in open vessels, several experiments were made; which gave the following result, the proportions of the alloy being 9 dwts. 10 gr., to 5 oz. 10 dwts. 14 gr. of gold.

'Fine gold, gold alloyed with silver, gold alloyed with copper, and gold alloyed with tin, did not suffer any loss during the experiment.

'Moreover, gold alloyed with lead only lost three grains, chiefly by vitrification.

'Gold alloyed with iron lost 12 grains, which formed scoria.

'Gold

'Gold alloyed with bismuth also lost 12 grains, chiefly by vitrification.

'Gold alloyed with antimony lost the same quantity, partly by volatilization, and partly by vitrification.

'Gold alloyed with zinc lost one pennyweight, by volatilization. And,

'Gold alloyed with arsenic, not only lost the whole quantity of alloy, but also two grains of the gold, which were carried off in consequence of the rapid volatilization of the arsenic.'

From the whole of the experiments of this section, the author concludes 'that, agreeably to general practice and opinion, only two of the metals are proper for the alloy of gold coin, namely, silver and copper; as all the others either considerably alter the colour, or diminish the ductility of gold. In respect to the latter quality, the different metallic substances which have been employed in the present experiments, appear to affect gold nearly in the following decreasing order: 1. Bismuth; 2. Lead; 3. Antimony; 4. Arsenic; 5. Zinc; 6. Cobalt; 7. Manganese; 8. Nickel; 9. Tin; 10. Iron; 11. Platina; 12. Copper; 13. Siver.'—The three first named are nearly equal in effect.

Sect. 2nd. *On the specific Gravity of Gold when alloyed by various Metals.*

The results of the particular experiments on this subject are given in several tables, to which we must refer our readers: but the circumstances producing variations in the specific gravity of metals are enumerated in the following passage:

'Imperfections in the interior of the mass, which are produced during the processes of melting and casting.

'The difference of density in parts of the same mass, resulting from the quality and quantity of the metal, from the nature of the mould, from the more or less vertical position of it, and from the height of the column or bar of metal which is cast.

'The unequal distribution of the metal or metals, employed as an alloy, throughout the mass intended to be alloyed.

'The peculiar effects which certain metals produce, when used singly or conjointly as alloys, and which are very different from the results of calculation.

'Heat, whether produced by friction or excited in any other manner.'

The 3d Section relates to *the comparative wear of Gold, alloyed by various Metals.*

'Gold, (says the author,) when in the form of coin, appears to be generally exposed to three varieties of friction, *viz.*

'1st. Friction between pieces of gold coin of a similar or of a different quality.

'2dly. Friction of gold coin against coin of other metals, such as silver and copper.

'3dly. The friction which gold coins of various qualities suffer, when exposed to the action of certain substances, such as the particles or filings of metals, gritty powders, &c.

'The consideration of these different modes of wear, points out the best method to be pursued in an experimental investigation.

'The whole of the experiments which compose this section may therefore be divided into three subordinate series; the two first of which have been directed to the consideration of that part of the diminution of the coin which arises from the rubbing of one piece of metal against another; while,

'The third of these subordinate series was intended to show the comparative power of gold, differently alloyed, to resist abrasion from sand or other gritty powders.

'In the first set of experiments, 28 pieces of coin were fixed to a frame, and over each of them was placed another piece of coin, which was pressed against it by a weight. These upper pieces were all attached to a second frame, so that, by means of the motion communicated thereto by cranks, each upper piece was made to move about $\frac{3}{8}$ of an inch backwards and forwards on the lower one. This mode of experiment afforded an opportunity of trying the comparative diminution of gold differently alloyed, both when rubbed against pieces of the same and of a different alloy; and also of examining the difference of wear between pieces with plain and with stamped faces.

'In the second series 200 pieces of gold, differently alloyed, were inclosed in a wooden box, of a cubic figure, which was kept constantly turning round, till, by the repeated rubbing and striking of the pieces against each other, and against the sides of the box, they were found to be sensibly diminished. This, like the experiments of the first set, was intended to show the comparative diminution of gold differently alloyed; but whereas that shewed the effects of rubbing only, this shewed the joint effect of rubbing and striking, and was intended to imitate (although in a more violent degree) the effect produced upon coin by pouring it out of one bag or drawer into another.

'The experiments of the third set were made by pressing the pieces to be examined against the rim of a flat horizontal wheel, by means of equal weights, so that, by turning the wheel round, they all suffered an equal degree of friction. That part of the wheel against which the pieces rubbed, was sprinkled or coated with some kind of powder, which was occasionally varied.'

To this general account of the mode employed for ascertaining the effects of friction, is added a particular description of the apparatus, as contrived by Mr. Cavendish. The number of revolutions of the machine was accurately noted, and appears to have varied in different experiments from 400 to nearly 300000.

The conclusions drawn from the 1st and 2d series of experiments are thus stated:

'1st. That fine gold, or of 23 car. $3\frac{3}{4}$ grs. when exposed to friction against gold of an equal quality, under the pressure of a considerable weight, suffers a very notable loss; and although various circum-

circumstances seemed to indicate that but little effect, in respect to abrasion, is produced under a less weight, yet it must be remembered, that the first case may occur.

'Moreover by the late experiments it has been proved, that fine gold, under all circumstances, is more subject to have any embossed or raised parts of its surface obliterated than any variety of alloyed gold; not always, nor indeed so much, by actual abrasion, as by having the protuberant parts pressed and rubbed into the mass, in consequence of its extreme softness and ductility.

'2dly. That fine gold, or of 23 car. 3¼ grs. when rubbed against the various kinds of alloyed gold, always or generally suffers the greatest comparative loss.

'3dly. That gold reduced to 22 carats, or to standard, by silver, or by silver and copper, or merely by copper, suffers by friction, under general and similar circumstances, a smaller diminution than the fine gold abovementioned; and, with or without abrasion, the protuberant parts on the surfaces of these pieces remain much more permanent, under all circumstances, than those of the fine gold. The difference of wear between the three kinds of standard gold abovementioned, does not in reality appear to be very considerable; but, upon the whole, the preference may be given to gold alloyed with a mixture of silver and copper, or to that which has only copper for the alloy.

'4thly. That gold made standard partly by the addition of iron or tin, sustains a greater loss by friction than either of the three kinds of standard gold abovementioned.

'5thly. That gold reduced to 18 carats by copper, is more liable occasionally to wear, in a small degree, than the three kinds of standard gold which have been lately mentioned, provided that the friction takes place between pieces of equal quality; but, in the contrary case, the principal loss always falls on the soft or standard gold, when it is opposed to gold of 18 carats, which is considerably harder.

'6thly. That gold more debased than that of 18 carats, such as gold alloyed with an equal proportion of copper, suffers very considerably more than any of the kinds hitherto mentioned, provided that the pieces are of the same quality; but, on the contrary, fine and standard gold experience a very great loss, when exposed to the action of this debased gold, while the loss of the latter is comparatively much less.

'7thly. That the wear of standard silver appears to be nearly equal with that of fine gold; but more than that of gold made standard by silver or by copper, and less than that of gold much debased by copper.

'8thly. That, as gold which is not inferior to standard wears in general less than standard silver, so does this last suffer much less than copper.

'The loss sustained by copper, when rubbed against copper, is infinitely more than that of the former metals; and, when these are exposed to the action of copper, they, as well as the copper, suffer a very considerable loss. This appears from the general results of these experiments, which prove, that pieces of metal which are the most subject to wear, are those which produce the greatest loss upon other

pieces of metal, when rubbed against them; and it is remarkable, that *in such a case*, the loss does not always fall on one in preference to the other; so that the wear can only be considered in the aggregate, although one of the pieces may be regarded as the principal cause.'

Very ductile standard gold, when exposed to friction with gold of a similar quality, suffered less by abrasion than that which was comparatively brittle or harder: but, when brittle (or hard) and soft gold rubbed against each other, the greatest loss was sustained by the latter; and pieces which had raised or embossed surfaces always suffered a greater loss by friction, than those which were smooth and flat. When the different alloys of gold were exposed to friction by earthy powders (as whiting or sand) and metallic filings, the wear seemed to be in proportion to their degrees of ductility.

The general observations relating to coinage, which are deducible from the numerous and (to all appearance) accurate experiments recorded in this paper, are, that gold made standard by silver or copper is to be preferred for the purposes of the Mint; and that therefore the present standard gold is 'that which is best adapted to resist abrasion;' especially in the case of coin rubbing against coin:—that gold coin suffers very little loss from friction against itself, and that the chief cause of natural and fair wear arises from extraneous and gritty particles, to the action of which the pieces may be exposed in the course of circulation:—but that the united effects of every species of friction, to which they may be subjected fairly and unavoidably during circulation, cannot produce any other wear than that which is extremely gradual and slow, and such as will by no means account for the extraordinary loss which the gold coin of this country is stated to have sustained within a certain limited time.—Great labour, perseverance, and skill, have evidently been exerted by Mr. Hatchett in this inquiry; and the memoir will make a considerable addition to his already well established chemical reputation.

An Account of some Stones said to have fallen on the Earth in France; and of a Lump of native Iron, said to have fallen in India. By the Right Hon. Charles Greville, F.R.S.—Since the publication of Mr. Howard's and the Count de Bournon's observations on certain stony and metallic substances, said to have fallen on the earth*, Mr. Greville has received from France three additional specimens, which have precisely the same characters, texture, and appearance with the others in his collection.

* See Rev. Vol. xxxix. N. S. p. 40.

'M. St.

'M. St. Amand, (says he,) very obligingly divided with me a specimen he had broken from a stone of about 15 inches diameter, preserved in the Museum of Bourdeaux, which stone fell near Roqueford, in the Landes, on the 20th August 1789, during the explosion of a meteor; it broke through the roof of a cottage, and killed a herdsman and some cattle. M. St. Amand also gave me part of a stone he had preserved in his collection ever since the year 1790, when a shower of stones, weighing from ½ an ounce to 15 and 25 pounds each, fell in the parishes of Grange and Creon, and also in the parish of Juliac, in Armeagnac; which fact was, at the time, verified by Duby, Mayor of Armile, and published by Bertholon, in the *Journal des Sciences utiles de Montpellier*, in the year 1790.

'The third specimen, I owe to the Marquis de Dree; it is a fragment, broken from a stone of 22 pounds weight, which fell near the village Salles, not far from Villefranche in Burgundy, on the 12th of March 1798; this was also accompanied by a meteor.'

Subsequent to the time at which these specimens came into his possession, the author has met with some additional evidence on the same subject, in an old Persian manuscript, of which a translation is given in this paper by Col. Kirkpatrick. It is an extract from the memoirs of the Emperor Jehangire, written by himself, giving an account of the falling of a luminous body in the year 1620; which buried itself to some depth in the earth, and, when dug out, was found to be as violently heated as if it had been just taken from a furnace. It resembled a lump of iron, and was committed to a skilful artisan, to manufacture into knives, &c. This person, however, found that it shivered to pieces under the hammer, and was only capable of being wrought after having been mixed with a fourth part of common iron.

We are still sceptics in this affair; and we apprehend that much deception has been effected in the minds of uninformed people, by the mere operation of the electric fluid on particles of iron ore in the earth.

Observations on the Structure of the Tongue; illustrated by Cases, in which a Portion of that Organ has been removed by Ligature. By Everard Home, Esq., F.R.S.—The tongue has generally been regarded as an organ of peculiar delicacy, severely affected by any local irritation, and capable, when injured, of producing an universal derangement of the system. A case occurred to Mr. Home, however, which presented some new and useful views on the subject. A gentleman had his tongue accidentally bitten with great violence. Much local pain was produced, but it was unaccompanied by swelling, or any other symptom than that the point was deprived of sensibility and the power of taste. From this case, the author was

led to conclude that the tongue is not particularly irritable: but that the nerves which supply the tip, and form the organ of taste, are very readily deprived of their natural action, perhaps from their being of a softer texture than nerves in general, and in that respect resembling those of the other organs of sense. From these circumstances, united to the consideration that an injury done to the nerves of the tongue, so great as to deprive them of the power of communicating sensation, was productive of no inflammation nor irritation in their nervous trunks, he was induced, in three cases of disease in this organ, to practice the removal of a part of it.

The first case was that of a fungous excrescence in a child eight years old, which existed at its birth and had increased ever since. It was seated on the right side of the anterior part of the tongue, and extended nearly from the outer edge to the middle line at the tip. Partial extirpation having frequently failed in producing a cure, it was determined to remove that part of the tongue to which the tumour adhered. This was done by passing a crooked needle, armed with a double ligature, through its substance, immediately beyond the excrescence; and the ligatures were tied so as to stop the circulation in the segment of the tongue on which the fungus was seated. The operation was attended with little pain; an opiate was given; and on the 5th day the portion of tongue came away with the ligatures, leaving a sloughy surface. This was thrown off on the 11th day, and was succeeded by another, which separated on the 15th. The cure was complete.

In two other cases, where there was a small tumour of the size of a pea, a cure was produced in a similar way.

The author infers, from these instances, a singular power possessed by the tongue, of throwing off its sloughs in a shorter time than any other part; and he adverts to this organ being much less affected by compression than the hæmorrhoidal veins in piles, or the spermatic veins in cases of varix: in both of which, violent local inflammation and considerable general fever are frequently produced.

An Account of some Experiments and Observations on the constituent Parts of certain astringent Vegetables; and on their Operation in Tanning. By Humphry Davy, Esq., Professor of Chemistry in the Royal Institution.—The author's principal design, in turning his attention to the subject of this paper, was to elucidate the practical part of tanning, by pursuing the valuable observations of Messrs. Seguin and Proust on the nature of this process. The discovery made by the former, of a peculiar vegetable matter, now called tannin, which is essential to the

the tanning of skin, and is possessed of the power of precipitating gelatine from its solutions, is of considerable interest and importance in the theory of the art: but, at the same time, it is observed by Mr. Davy, that 'its processes appear to have arrived, in consequence of repeated practical experiments, at a degree of perfection which cannot be very far extended by means of any elucidations of theory that have as yet been made known.'

In the progress of his inquiries, the ingenious author is necessarily led to an analysis of the different vegetable substances containing tannin, and their peculiar properties. The first section includes observations on the analysis of astringent vegetable infusions. After having made several experiments on different methods of ascertaining the quantity of tannin in astringent infusions, he was induced to employ the common process of precipitation by gelatine, as the most accurate. He remarks, however, that the quantity of the precipitate obtained is not always proportional to the quantities of tannin and gelatine in solutions, but is influenced by the degree of their concentrations; and that the solutions of gelatine should be employed only when quite fresh, and in as high a state of saturation as is compatible with their perfect fluidity. He likewise observes that care must be taken to prevent the addition of any excess of gelatine; because, in this case, the result is likely to be affected by a portion of the solid compound being redissolved.

Mr. Hatchett has noticed that isinglass is almost wholly composed of gelatine; and the present author has found that 100 grains of good and dry isinglass contain rather more than 98 grains of matter soluble in water: hence, by comparing the quantity of this substance employed in any solution for acting on an astringent infusion, with the quantity of the precipitate obtained, the difference between them will indicate the proportion of tannin, as it exists in the combination. After the separation of the tannin, Mr. Davy evaporates the residuum at the temperature of about 200°, and pours on alcohol, for the purpose of dissolving the gallic acid and the extractive matter. He has not yet been able perfectly to separate the last two from each other: but he can form some estimate of their relative proportions by employing the muriate of alumine, which precipitates much of the extractive matter, without acting materially on gallic acid, and afterward adding the oxygenated sulphate of iron, which gives a black precipitate with the gallic acid.

The second section contains *Experiments on the Infusions of Galls*, in which the author minutely examines the different

combinations formed with and changes produced by various reagents. For the detail of the experiments, we must refer to the paper: but we insert some of the observations, as affording the more interesting results.

'In examining the action of animal substances upon the infusion of galls, with the view of ascertaining the composition of the compounds of gelatine, and of skin, with tannin, I found that a saturated solution of gelatine, which contained the soluble matter of 50 grains of dry isinglass, produced from the infusion a precipitate that weighed nearly 91 grains; and, in another instance, a solution containing 30 grains of isinglass, gave about 56 grains; so that, taking the mean of the two experiments, and allowing for the small quantity of insoluble matter in isinglass, we may conclude, that 100 grains of the compound of gelatine and tannin, formed by precipitation from saturated solutions, contain about 54 grains of gelatine, and 46 of tannin.

'A piece of dry calf-skin, perfectly free from extraneous matter, that weighed 180 grains, after being prepared for tanning by long immersion in water, was tanned in a portion of the infusion, being exposed to it for three weeks. When dry, the leather weighed 295 grains: so that, considering this experiment as accurate, leather quickly tanned by means of an infusion of galls consists of about 61 grains of skin, and 39 of vegetable matter, in 100 grains.

'After depriving a portion of the infusion of all its tanning matter, by repeatedly exposing it to the action of pieces of skin, I found that it gave a much slighter colour to oxygenated sulphate of iron, than an equal portion of a similar infusion which had been immediately precipitated by solution of isinglass; but I am inclined to attribute this effect, not to any absorption of gallic acid by the skin, but rather to the decomposition of it by the long continued action of the atmosphere; for much insoluble matter had been precipitated, during the process of tanning, and the residuum contained a small portion of acetous acid.

'In ascertaining the quantity of tannin in galls, I found that 500 grains of good Aleppo galls gave, by lixiviation with pure water till their soluble parts were taken up, and subsequent slow evaporation, 185 grains of solid matter. And this matter, examined by analysis, appeared to consist,

Of tannin - - -	130 grains.
Of mucilage, and matter rendered insoluble by evaporation - - -	12
Of gallic acid, with a little extractive matter	31
Remainder, calcareous earth and saline matter	12.'

Section 3d details *Experiments and Observations on Catechu or Terra Japonica.*

Mr. Davy was induced to direct his attention to the nature of this substance, from its being suggested by Sir Jos. Banks, that its sensible qualities seemed to indicate tannin to be a constituent part of it. Of this extract he observes that there are two kinds:

'One

'One is sent from Bombay, the other from Bengal; and they differ from each other more in their external appearance than in their chemical composition. The extract from Bombay is of an uniform texture, and of a red brown tint, its specific gravity being generally about 1.39. The extract from Bengal is more friable, and less consistent; its colour is like that of chocolate externally, but, when broken, its fracture presents streaks of chocolate and of red-brown. Its specific gravity is about 1.28. Their tastes are precisely similar, being astringent, but leaving in the mouth a sensation of sweetness. They do not deliquesce, or apparently change, by exposure to the air.'—

'The strongest infusions and decoctions of the two different kinds of catechu, do not sensibly differ in their nature, or in their composition. Their colour is deep red-brown, and they communicate this tinge to paper; they slightly redden litmus-paper; their taste is highly astringent, and they have no perceptible smell.'

The same plan was adopted in analysing the catechu, that was followed in the examination of the other species of astringent substances. Two hundred grains of powdered Bombay catechu afforded

	Grains.
'Tannin - - - -	109
Peculiar extractive matter - - -	68
Mucilage - - -	13
Residual matter; chiefly sand and calcareous earth	10

'The powder of the Bengal catechu gave, by similar methods of analysis, in 200 grains,

	Grains.
Tannin - - - -	97
Peculiar extractive matter - -	73
Mucilage - - - -	16
Residual matter; sand, with a small quantity of calcareous and aluminous earths - - -	14'—

'Of two pieces of calf skin which weighed, when dry, 132 grains each, and which had been prepared for tanning, one was immersed in a large quantity of the infusion of catechu from Bengal, and the other in an equal portion of the infusion of that from Bombay. In less than a month they were found converted into leather. When freed from moisture, by long exposure in the sunshine, they were weighed. The first piece had gained about 34 grains; and the second piece $35\frac{1}{2}$ grains. The leather was of a much deeper colour than that tanned with galls, and on the upper surface was red-brown. It was not acted on by hot or cold water; and its apparent strength was the same as that of similar leather tanned in the usual manner.'

The 4th Section consists of *Experiments and Observations on the astringent Infusions of Barks, and other vegetable Productions.*

Two hundred grains of the strongest infusions of the barks of oak, Leicester willow, and Spanish chesnut, were submitted to evaporation; and in this process 'the infusion of the oak bark

bark furnished 17 grains of solid matter; that of the Leicester willow about $16\frac{1}{2}$ grains; and that of the Spanish chesnut nearly an equal quantity. The tannin given by these solid matters was, in that from the oak bark infusion 14 grains; in that from the willow bark infusion $14\frac{1}{2}$ grains; and in that from the Spanish chesnut bark infusion 13 grains.' Calculating from the results of other experiments, the author is disposed to conclude that the compound of tannin and gelatine, from the strongest infusion of oak bark, consists in 100 parts 'of 59 parts of gelatine and 41 of tannin; that from the infusion of Leicester willow bark, of 57 parts of gelatine and 43 of tannin; and that from the infusion of Spanish chesnut bark, of 61 parts of gelatine and 39 of tannin.'

'Two pieces of calf-skin, which weighed when dry 120 grains each, were tanned; one in the strongest infusion of Leicester willow bark, and the other in the strongest infusion of oak bark. The process was completed, in both instances, in less than a fortnight; when the weight of the leather formed by the tannin of the Leicester willow bark was found equal to 161 grains; and that of the leather formed by the infusion of oak bark was equal to 164 grains.'

When the process of tanning, however, was more slowly conducted, and was effected by weaker solutions, the increase of weight was much less, and the colour of the leather was deeper.

With regard to the relative quantities of tannin in different entire barks, the results were as follow: In the quantity of an ounce of its bark, the oak produced 61 grains of matter dissolved by water, of which 29 grains were tannin; the Spanish chesnut, 53 grains, of which 21 were tannin; and the Leicester willow, 71 grains, of which 33 were tannin. An ounce of the bark of the elm furnished 13 grains of tannin, and of the common willow 11 grains; the same quantity of Souchong tea afforded 48 grains, and of green tea, 41 grains; 165 grains of matter soluble in water, of which 78 grains were tannin, and 156 grains, of which 79 were tannin, were afforded, the former from an ounce of Sicilian, the latter from an ounce of Malaga sumach. Very little tannin was observed in cinchona or other febrifuge barks, and none in any of the strongly bitter vegetable infusions which Mr. Davy examined: but he has found it in sloes, port wine, and substances which contain sugar and vegetable acids; and he suspects that it exists in all matters possessed of the astringent taste.

The 5th and last Section is occupied with general observations relating to the subject of this paper. Though tanning may be quickly effected by means of strong infusions of barks of catechu, yet the author is of opinion that the leather, which

is

is produced by a slower process, is stronger and softer; and that this circumstance probably arises from a greater quantity of the extractive matter combining with the skin than could otherwise be the case. The different qualities of the leather, seem to him to depend very much on the various quantities of this extractive matter, which have entered into chemical combination with it.

Catechu is the substance which, according to Mr. Davy's experiments, affords the greatest quantity of tannin; and it appears to him that if, according to the usual estimation, from four to five pounds of common oak bark are required to produce one pound of leather, about half a pound of catechu would answer the same purpose. He also concludes that, allowing for the difference in the composition of the various kinds of leather, 'one pound of catechu, for the common uses of the tanner, would be nearly equal in value to 2¼ pounds of galls, to 7½ pounds of the bark of the Leicester willow, to 11 pounds of the bark of the Spanish chesnut, to 18 pounds of the bark of the elm, to 21 pounds of the bark of the common willow, and to 3 pounds of sumach.'

Appendix to Mr. Wm. Henry's Paper, on the Quantity of Gases absorbed by Water, at different Temperatures, and under different Pressures.—The author here informs us that he has found, since the printing of his former communication, 'that the numbers assigned in it, as indicating the quanties taken up by water, of some of the more absorbable, and of all the less absorbable gases, are rather below the truth.' He communicates the results of his latest experiments, and farther explains the ideas suggested to him by Mr. Dalton on the absorption of carbonic acid gas by water, by stating 'that the absorption of gases by water is purely a mechanical effect, and that its amount is exactly proportional to the density of the gas, considered abstractedly from any other gas with which it may accidentally be mixed:'—hence, 'if the residuary gas contain $\frac{1}{2}$, $\frac{1}{10}$, or any other proportion, of foreign gas, the quantity absorbed by water will be $\frac{1}{2}$, $\frac{1}{10}$, &c. short of the maximum.'

The usual Meteorological Journal terminates this part of the present volume. Part II. has just made its appearance.

Yell. See p. 397.

ART.

ART. VIII. *A Chronological History of the Discoveries in the South Sea, or Pacific Ocean.* Part I. commencing with an Account of the earliest Discovery of that Sea by Europeans, and terminating with the Voyage of Sir Francis Drake, in 1579. Illustrated with Charts. By James Burney, Captain in the Royal Navy. 4to. pp. 400. 1l. 4s. Boards. Nicol, &c. 1803.

MARITIME discovery possesses most of the qualities which excite and gratify the curiosity of civilized man; and though we may not always be able to approve the motives which have prompted nations and individuals to explore unknown seas, we are soon induced to forego this preliminary objection, in contemplating the beneficial consequences which have resulted from their enterprize. Commerce, which has polished the world by a gradual communication of enlightened legislation, and of all the comforts of life, has also received its greatest extension from this spirit; to which we, as Britons, are eminently indebted for those important parts of the strength of the empire, our navy, colonies, and distant dominions. We therefore enter with great pleasure on the review of a work which is intended to trace discovery regularly from its source; and which proceeds from the pen of one whose profession, and whose personal experience as a companion of the immortal COOK, so well qualify him for the office which he has assumed.

From a prefatory address to Sir Joseph Banks, we learn that this volume is to be considered in two points of view; as an intended specimen of the possibility of a general digest of Maritime Geographical Discovery, and in its own individual character. The author observes that 'the accounts of voyages now in the possession of the public, are alone sufficient, both in number and in quantity, to form a considerable library. The length to which some of the relations have been extended, especially those of a modern date, and the want of any general arrangement, are become vexatious obstructions to the acquisition of knowledge in maritime geography.' To obviate these evils, he proposes, 1st. a classified digest of such voyages as have afforded real information; and, 2dly, compression. In considering the former of these requisites, he points out the objections to a *chronological* or *national* arrangement in a general history of voyages; and principally because either of these arrangements 'would be attended with this great inconvenience, that to obtain a satisfactory account of any one subject, it might be requisite to consult every volume in the collection, however extensive.' He therefore bestows a decided preference on the method of classing voyages according to some hydrographical division of the globe, preserving to each division the

chronological order of narration. It is necessary to give the proposed classification, in order that our readers may comprehend the full scope and intention of Captain Burney's plan, and thence be enabled more distinctly to appreciate its merits:

'The following division is proposed as one which appears capable of preserving its classes in a great measure distinct from each other.

'The first class may contain the voyages to the north of Europe; those in the north seas, and towards the north pole.

'The second, those along the west coast of Africa to the *Cape of Good Hope;* and the discoveries of the Atlantic islands.

'The third, east from the *Cape of Good Hope* to *China,* including the Eastern Archipelagos between *New Holland* and the coast of *China*. *Japan* might have a section to itself as a supplement to this class.

'The fourth might contain the whole of the discovery of the east side of America, except the *Strait of Magalhanes* and of *Le Maire,* which are more connected with the voyages to the South Sea.

'The fifth class may comprehend the circumnavigations and voyages to the South Sea. With these, the discoveries on the west coast of North America are so much interwoven, that they cannot, without disadvantage, be separated.

'The discoveries made by the Russians in the seas near *Kamtschatka,* and from thence to the north, would appear not improperly as a supplement to the fifth class.

'*New Holland* might form a sixth class. This country would naturally have divided itself between the third and fifth, had not its importance so much increased within the few last years, that it now requires a distinct class to itself.

'The foregoing division is offered as a sketch for a general plan: the classes are capable of modification, according to the convenience or inclination of those who may undertake any part of the task.'

In treating of the other requisite, *compression,* the author particularly notices the superabundance of nautical remarks with which some accounts are loaded; 'even in known seas, and when far distant from land, as if it were a matter of importance to settle the exact geography of a spot in the middle of the ocean, where no mark exists by which it can be ever recognized. To remedy this by striking out any part of what is useful, is to exchange superfluity for defect. Many have supposed that to abridge is a work of no labour; that to read and reject such parts as are disapproved, is nearly the whole that is required: the consequence has been, that abridgments have been undertaken by persons very inadequately skilled in the subject of which their original consisted.' In a complete account of a voyage, Capt. B. remarks, 'every thing should be mentioned which possesses any prospect of utility, and the quantity of remark may be proportioned to the importance and to the occasion;

occasion; avoiding to seek brevity at the expence of the more valuable qualities of information or interest.'

The methodical arrangement above described certainly affords much encouragement and facility in a great and important undertaking, since each class may occupy the undivided attention of any person who may deem himself qualified for the particular subject. In the present instance, as we have already intimated, the choice has been made on good grounds, which are thus modestly stated by Capt. Burney: 'For the subject of the present work (he says), I have chosen the discoveries made in the South Sea, to which my attention has been principally directed, from having sailed with that great Discoverer and excellent Navigator the late Capt. Cook, under whose command I served as Lieutenant in his two last voyages.' We are subsequently informed that Sir Joseph Banks, Mr. Dalrymple, and Major Rennel, gave their approbation and assistance to the author's plan; and doubtless these eminent geographers were glad to acquire such a fellow-labourer in the spacious field of their useful investigations: reasonably expecting from the personal observations and experience of Captain Burney, an able commentary on the voyages and discoveries which have produced our acquaintance with the South Sea.

One of the great difficulties in this plan seems to consist in executing the task of compression so as to avoid dryness or material omission; though it is possible that the careless compilations, which in the present day too often stifle the sources of real information, may have habituated the mind to magnify this difficulty beyond reality. A work may naturally, without any intention of its author, retain an individual character of its own, from whatever source the materials are drawn; if in his progress he closely examine the subject, and bestow on it the best illustration which his own knowlege and reflection can afford. Under such circumstances, indeed, a writer may be even supposed unable to prevent the appearance of a manifest originality in his compositions. How far this observation applies to the present publication will be hereafter seen.

The volume commences with a description of the natural limits of that part of the ocean which is now known by the appellation of the South Sea, or Pacific Ocean, and with a concise account of the discoveries effected, as well as the various attempts to make others, by Europeans within those limits previously to the voyage of *Magalhaens*. The attention of all the maritime powers of Europe was at that time directed to discovery; and the partitions of the *New World* in favour of Portugal and Spain, by the Pope, had already been matter of serious discussion between those nations. In the year 1513, the South

Sea

Sea was first seen by Europeans from the Isthmus of Darien; and Capt. B. makes this remark on the origin of the name *South Sea:*

'The particular position of the coast of that part of the American continent from whence the sea on the other side was first discovered, appears to have stamped on it the denomination of the SOUTH SEA. The isthmus of *Darien* lies nearly east and west; consequently, there the two seas appear situated, the one to the north, and the other to the south. If the new sea had been first discovered from any part to the south of the bay of *Panama*, it would probably have received some other appellation. A consequence resulting from the name thus imposed has been, that the Atlantic ocean, by way of contra-distinction, has occasionally been called the North Sea, even in its most southern part. A ship sailing through the strait of *Magalhanes*, has been said to have passed from the North Sea into the South Sea, or *vice versa:* and in the *Dict. Encyclopédique*, we meet with the following article, '*Riviere de la Plata,—qui prend sa source a Pérou & va se jetter dans la mer du Nord par le* 35me *deg. de Lat. Merid.* The two seas nevertheless, relative to each other, are North and South only in the neighbourhood of the isthmus of *Darien:* in their general extent they are east and west.'

The possibility of sailing round the south point of Africa having been recently ascertained by the Portuguese, an inference was drawn that America terminated to the southward in a similar manner, and a voyage for discovering a passage to the South Sea was undertaken in 1515: but the commander, Juan Diag de Solis, one of the most able navigators of his time, being killed at Rio de la Plata, the attempt was abandoned; and thus the glory of first penetrating from the Atlantic to the South Sea, and of the consequent circumnavigation of the globe, was reserved for Magalhaens, a Portuguese who, from disgust at neglect or ill-treatment in his own country, had offered his services to the crown of Spain. Many accounts of the voyage of Magalhaens have appeared, but all of them are defective, and ill-agreeing with each other; and therefore the scattered materials, from which the present history has been necessarily compiled, are well adapted to display the author's assiduity of research, and his skill in combining broken narratives to form a consistent whole. Capt. B. has given a list of the early authorities, accompanied with a short character of each, and the circumstances under which it was written: but the account, which there is reason to believe was the most authentic and complete, was lost to the world.

'It was written by Pietro Martire, a Milanese, generally distinguished by the appellation of *P. Martyr de Angera*, who was in the service of the emperor CHARLES V., and at the time a commissioner for the affairs of the Spanish Indies. He was ordered by the

emperor to repair to *Seville*, for the express purpose of collecting all the information that could be obtained, both oral and written, from those who returned, and to draw up a history of the voyage. He completed his task, and the manuscript was sent to Pope ADRIAN VI. at *Rome*, under whose auspices it was to have been printed. But ADRIAN dying soon after (as likewise did *P. Martyr*), the work seems to have been neglected by his successor; and, in the sacking of the city by the *Connétable de Bourbon*, 1527, the copy was unfortunately lost, probably consumed by the flames, as it has never since appeared. In Martire's 5th Decade, cap. 7, which has for title *De Orbe Ambito*, and is addressed "*Adriano Pontifico Maximo*," there is an abridged account, or rather the author has recapitulated the heads of the voyage.'

The authorities chiefly followed by Capt. B. for the voyage of Magalhaens are, the Narrative of Antonio Pigafetta *, and Herrera's History of the Indies. Pigafetta performed the voyage with Magalhaens, and his Narrative was the first detailed account that was given to the public. A passage in this Narrative has been the subject of much discussion: in the course of which it has been pretended that Martin Behaim was the original discoverer of the Southern Strait of America; that is, that he had delineated it on a chart before the voyage of Magalhaens: but Capt. B. refuses his assent to the claim in favour of Behaim:

'If any mention of such a chart could be traced to a date prior to the voyage of MAGALHANES, it would be entitled to some degree of credit: but the assertions above cited, being written posterior to his discovery, they require the support of strong evidence, such as the production of the chart in question, with satisfactory proof to establish the fact of a date early enough to anticipate the claim of MAGALHANES. When such evidence shall be produced, it will be time to enter seriously into the enquiry; but, till then, it would be injustice to the memory of a great enterprize.'

We are not, indeed, to be surprized that (as in the case of *Columbus*) the previous speculations of geographers have been urged as a diminution of the glory of Magalhaens: but it should be considered that, while half the globe remained unexplored, many vague speculations must have been hazarded; and such of them as were eventually confirmed form no real derogation from the merit of those discoverers, who demonstrated what before was only supposed to exist. As to the claims of Behaim, they are fully refuted by the description and representation of a globe made by him at Nuremberg in 1492†

* See an account of Pigafetta's voyage, as lately published, Rev. Vol. xxxvii. N. S. p. 474.

† See the above cited article.

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(the year in which Columbus sailed on his great voyage of discovery) which has been lately published: because, on this globe, no American continent appears, nor any land to obstruct a free navigation westward to China.

The track of Magalhaens across the South Sea has been with the author a subject of much investigation. Of all the numerous islands scattered in that ocean, two only, and those barren and uninhabited, were discovered by that navigator. The position of these islands is calculated by Capt. B. from a combination of the circumstances which occur in the old accounts; and his reasonings on this point appear to stand on the fairest ground of probability. It is not ascertained that either of these islands has been seen by subsequent navigators: but the author is of opinion that the island *Solitaria*, discovered by *Mendana*, in 1595, in lat. 10°. 40′ south, long. 173½° west from Greenwich, may be supposed to be the island *Tiburones*. The track of Magalhaens is not marked in any of the early charts that have come under our observation; and perhaps the chart at the beginning of the present volume exhibits the only attempt deserving of notice, to delineate the progress of this first navigation across the *Pacific Ocean:* which was so named by Magalhaens, on account of the mild weather experienced by him after he came within the influence of the trade winds.

At one of the Philippine Islands, at that time named the Archipelago of St. Lazarus, Magalhaens became embroiled with the natives, and lost his life. He had arrived with three ships at the island of *Zebu*, in April 1521; and in the short space of a week, he had obtained sufficient influence to persuade the sovereign of *Zebu* (whose example was followed by most of his subjects) to become a convert to the Christian religion, and to acknowlege himself a vassal of the crown of Spain. Previously to this event, the people of *Zebu* were idolaters; and Capt. B. observes:

'The sudden conversion of the people of *Zebu* to the religion of strangers, who had no other means of communicating their instructions, than through the intervention of an ignorant interpreter, is truly extraordinary; but may more naturally be attributed to an indifference for their own modes of worship, than to any conviction which, in so short a time, under such circumstances, could have been impressed upon them of the merits of the religion they embraced.

'This slenderness of attachment to their idolatry appears to have been, even in our own time, characteristic in those natives of the *Philippine* Islands, who had preserved their original customs. In a chart published from a Spanish manuscript, dated 1754, of the North side of *Mindanao*, inserted in the second volume of Mr. *Dalrymple's* Collection of Plans of Ports, the following remark appears on one

part of the coast: 'The greater part of the natives retired to the mountains on account of the invasion of the Moors. These are, as yet, chiefly Gentiles, easily to be converted.'

The account of the death of Magalhaens will be interesting to the reader, and will also serve as a specimen of the general style of the narrative; as well as of the author's manner of blending the various authorities from which he has compiled his history of this voyage.

'Near the port of *Zebu* was a small island named *Matan*, over which the captain-general was desirous to extend his authority. He accordingly sent to demand of Cilapulapo, the chief of *Matan*, a tribute, as an acknowledgment of fealty and obedience due to the emperor, and that he would submit himself to the Christian king of *Zebu*; threatening that if these conditions were not complied with, his town (which was likewise named *Matan*) should be destroyed. The chief of *Matan*, who was of a warlike disposition, and on that account high in reputation among the natives, returned answer, 'that he desired to be on good terms with the Spaniards, and that he might not be accounted inhospitable, he sent them a present of provisions. As to obedience, he could owe none to strangers of whom he had never before heard, neither would he submit to do reverence to those he had long been accustomed to command.' This answer did not at all satisfy the general, and he determined to go and punish the king of *Matan* for his contumacy. His friend, the Christian king, advised him against the expedition, as he had received information that not only the chief, whose village had been burnt, but likewise the others who had made their submission, were at *Matan* with their forces to support the cause of the chief of that island. Captain Juan Serrano entertained the same opinion with the King of *Zebu*, and endeavoured to dissuade his commander from the undertaking; but he continued firm in his first determination. Pigafetta relates, that he was deceived by a promise of being joined by one of the chiefs as soon as he should land at *Matan*. MAGALHANES, however, was not of a disposition that rendered encouragement necessary.

'The King of *Zebu*, finding the general so resolute, prepared to join in the expedition, as did his son-in-law, and most of the principal inhabitants of the town of *Zebu*. At midnight, on the 26th of April, MAGALHANES set out for *Matan*, with 60 Europeans in three boats, accompanied by the Christian King, (so Herrera constantly styles the *Zebu* chief,) and 1000 of his men, in canoes. They arrived at the island of *Matan* two hours before day, but it being low water, the boats could not get within a cross bow shot of the town. By advice of the Christian King, the landing was deferred till day-light, as it was supposed that the people of *Matan*, warned by the former expedition of the Spaniards, had made preparations against a night attack: and this was not a mistaken conjecture, for they had dug pits between the landing-place and the town, and fixed in them sharp stakes.

'MAGALHANES, whilst he waited the approach of day, sent on shore the Moor merchant, formerly mentioned, to offer in his name, proposals

proposals of accommodation, the conditions of which were, that the King of *Matan* should make his submission, acknowledge the sovereignty of the crown of Spain, and pay the tribute demanded: that then all past offences should be forgotten, and he and his people be regarded as friends. The King of *Matan*, not intimidated by the approach of the Spaniards, returned an answer of defiance, to which, with mischievous pleasantry, he added a request, that he might not be attacked before day-light, as he then expected considerable reinforcements. This was said in the hope of enticing, or provoking the Spaniards to immediate action. When it was light, the King of *Zebu* offered to make the first onset with his 1000 men, which would, he said, if they were supported by the Spaniards, ensure the victory. MAGALHANES not only declined accepting this offer, but was so fully persuaded that no number of Indians could withstand the attack of sixty armed Europeans, that he ordered the Christian King to remain quietly with his people in the canoes, from whence they might take notice how the Spaniards fought.

'Accordingly, leaving a small number with the boats, MAGALHANES landed with his men, and marched up to the town. [Herrera says 55 Spaniards landed. Pigafetta states the number to be 49, among whom himself was included, and that 11 were left to guard the boats.] No enemy appeared at first to oppose them, and some of the houses had been set on fire by the Spaniards, when a strong body of Indians were seen advancing on one side. By the time the Spaniards had made dispositions to attack them, a second body of Indians appeared, advancing from another quarter, and MAGALHANES was obliged to make a division of his force. Pigafetta says, the Indians had divided themselves into three battalions; that two attacked the Spaniards in flank, and the third in front. He estimated their strength at 1500 men; Herrera states it at 6000 men; and Gomara at 3000. The Indians, however, did not venture on a close attack; nor does it appear that the Spaniards advanced beyond the town; but a kind of missive battle was kept up during the greater part of the day, with stones, lances, and arrows on one side, against the musquetry and cross-bows of the other. The islanders, finding they received less injury from the fire of the Spaniards than they had apprehended, were encouraged to approach near enough to aim their darts at the person of the Captain-general, who, with the intention of intimidating them, sent a few of his men to set fire to some houses at a small distance, above twenty of which were consumed; but this measure produced a contrary effect. Either from rage at seeing their houses burnt, or believing they could attack the detached party with advantage; numbers of the Indians rushed towards the spot, and two of the Spaniards were there killed. The Indians, perceiving that their darts and arrows made no impression when directed against the heads or bodies of their enemies, which were protected by armour, adopted the plan of aiming only at their legs. At length, the ammunition of the Spaniards began to fail, and their fire slackened, which being observed by the islanders, they pressed on, and MAGALHANES found it necessary to order a retreat. The Christian King, during the whole of this time, had paid the most exact obedience to the commands he had received from the General; he and

his men looking quietly at what was passing, without moving from their canoes. Early in the retreat, MAGALHANES was wounded in the leg by an arrow; his person being known to the Indians, their efforts were principally directed against him. The boats were still at a distance, the shore being flat and rocky; and many of the Spaniards, instead of making an orderly retreat, hastened towards them with precipitation. The helmet of MAGALHANES was twice beaten off with stones; his right arm being wounded, he could not use his sword; and being closely pressed on by multitudes, he was brought to the ground. When he was down, an Indian killed him with a lance.

'In the latter part of this unfortunate affair, the Christian King, seeing the distressed situation of the Spaniards, advanced to their relief, by which many were saved. Eight of the Spaniards fell with their commander, among whom was Christoval Rabelo, captain of the Vitoria. Twenty-two were wounded, of which number was Pigafetta, by an arrow in the face. Four of the *Zebu* Indians were likewise killed. Of the people of *Matan*, fifteen were killed, and a great number wounded. The 27th of April, the day of this unfortunate battle, was Saturday, a day which the General held in particular veneration, and had chosen, on that account, for the expedition to *Matan*.'

To the account of this catastrophe, Capt. B. has added the character of this celebrated commander:

'Thus unexpectedly fell MAGALHANES, by a quarrel unnecessarily engaged in, for a cause which cannot be defended, and in the prosecution of which he consulted his presumption rather than his judgment. He is, nevertheless, well worthy the title of 'Great Captain,' given him by Herrera. In his person there was nothing remarkable: he is said to have been under the common size. In his disposition, he was quick, and perhaps irritable. Herrera calls him '*un hombre prompt*;' and certainly, in resolution and decision, few men of any age have equalled him. A strong and peculiar feature in his character, appears to have been inflexible perseverance. He was bent on the performance of whatsoever he undertook, and no common circumstances of discouragement would turn him from his purpose. He was a man to encounter difficulties: whilst he believed them surmountable, they increased the earnestness of his pursuit. As a navigator, he was not inferior to any of his time. As a discoverer, he was second only to COLUMBUS, whose enterprize was so grand, that it left no room for an equal. COLUMBUS atchieved that which no man, except himself, had ever dared to undertake. The praise due to MAGALHANES is, that he performed what no one before him had been able to accomplish.'

The honour of being the first who completed the European navigation round the world indisputably belongs to Magalhaens; who sailed in a westerly direction beyond the meridan of the *Moluccas*, which had before been discovered by an easterly route. After the death of this commander, the King of Zebu no longer respected the power of the Spaniards, but

treacherously invited them on shore, and massacred all who on this occasion intrusted themselves in his power. The remaining Spaniards proceeded from island to island till they arrived at the city of Borneo: where they found much magnificence, and the established ceremonial of a court which appears to have adopted, in an extraordinary degree, the eastern policy of exciting reverence by keeping the vulgar at an aweful distance. 'No one was allowed to have direct communication by speech with the King, except his Queen and sons. Every other person who had any thing to impart to the monarch, addressed himself first to some courtier, his immediate superior in rank, who made the matter known to another, a degree his superior; and thus, step by step, it ascended to a minister who might unfold the business to his sovereign by means of a tube placed in the wall.' The modes of expression among the people of Borneo, as Capt. B. observes, must have been remarkably precise, if the representations of any of the lower class of subjects reached the sovereign with unaltered meaning.

The author justly characterizes the voyage of Magalhaens as one of the most extraordinary and eventful that have ever been performed: 'as a voyage which cannot be contemplated without producing impressions only to be communicated by original discovery. While the advancement of science shall continue to interest mankind, Magalhaens, whose enterprizing perseverance first practically demonstrated the form of our planet, will be remembered with admiration and gratitude.' Men of science, therefore, will feel much obligation to Captain Burney, for having collected and arranged the scanty information extant concerning this important voyage; and in throwing new light on this venerable atchievement, his narrative successfully combines the attractions of novelty and antiquity. The geographical and nautical remarks are drawn up with clearness and brevity; and they are expressed in terms which render them intelligible to every class of readers. It will also be a recommendation with many, that the author has been anxious to keep geographical discussion distinct and separate from the general narrative, wherever the circumstances would so permit.

[*To be continued.*]

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ART. IX. *The History of the Invasion of Switzerland by the French*, and the Destruction of the Democratic Republics of Schwitz, Uri, and Unterwalden. By Henry Zschokke, National Prefect of the Canton of Basil. Translated from the French of J. B. Briatte, Secretary of Legation to the Helvetic Republic at Paris. With a Preface and Supplement by the Translator. 8vo. pp. 365. 7s. Boards. Longman and Rees. 1803.

OF the claims of this work, as it appeared in the French translation, we have already spoken *. The present version comes from the pen of Dr. Aikin; who informs us that the original author 'was nominated in 1798 by the Helvetic directory commissioner of government in the small cantons, and charged with the office of healing, as much as lay in his power, the wounds inflicted by war. In the course of his mission he collected all the materials necessary for the history which he afterwards published; and he drew from the archives of the country all the documents which might contribute to render it exact and authentic.'

The laudable motive which induced the respectable translator to engage in the present undertaking is thus stated:

'Its publication in English at the present period was thought peculiarly calculated to promote that spirit of resistance to unprincipled ambition, and the schemes of universal domination, which is alone to be relied upon in the arduous contest in which the nation is now engaged. The history of the memorable struggle here recorded will show what a people very inconsiderable in point of wealth and number was able to do in checking the progress of a host of invaders, by the mere force of native courage, and enthusiastic love of liberty and their country. It will show, that, stimulated by these motives, a band of peasants could be brought to charge with the bayonet, and entirely to defeat, battalions rendered formidable by their victories to the most warlike troops in Europe. It will also afford much valuable instruction for avoiding the faults which frustrated the defensive plans of the most powerful part of the confederacy, and placed the final stake in the hands of a few half-armed herdsmen. Moreover, it cannot fail to impress every generous mind with an indignant sense of the insolence of a lawless conqueror, and the degradation incurred by a vanquished and subjugated people.'

If, sharing in these honourable feelings, we resume our notice of this history by extracting those passages from which useful lessons may be drawn at this serious crisis,—or which tend to exalt patriotism, to animate zeal, and to call forth exertions on the part of the public,—rather than those which afford scope for criticism, we trust that there will not be many who will remind us that we have forsaken our province, and over-

* See Rev. Vol. xxxviii. N. S. p. 470.

stepped

stepped our boundaries: especially when it is considered that we have already pronounced on the general merits of the work.

For a narrative of the circumstances which led to the antient Swiss confederacy, and of those which account for the amazing successes of this sequestered people; as well as for the detail of those mischiefs which arose out of their victories over Charles the Bold of Burgundy; we must refer to the work, while we attend to the state of the Swiss for the last century and a half:

'After the independence and sovereignty of the Helvetic body had been recognised by the treaty of Westphalia, the Swiss took no part in foreign wars. They thought that the defence of their liberty and country was the only cause which could justify the effusion of blood in war. They were not, indeed, without occasions for taking part in the quarrels of their neighbours, or even without powerful motives to interfere. The war of thirty years, the immoderate haughtiness of Lewis XIV, the terrible contest for the Spanish succession, all in their turns might seem reasons for rousing from their apathy; but they resisted all these temptations, and, content with preventing by force of arms any entrance upon their territories, they obtained without bloodshed, and without hazarding their military reputation, that honourable tranquillity which ought to be the object of every war.

'The resolution of the confederates to preserve a strict neutrality, was strengthened by the considerable changes which had taken place in the political condition of the surrounding countries. Helvetia, formerly encircled by a crowd of petty states, had now great powers for its neighbours. To the east, where formerly a duke of Austria ruled with little danger to her; to the south, where she had seen a duke of Milan imploring her support; now reigned a single monarch, whose dominions extended from the banks of the Rhine and the Adriatic sea to the Tartarian deserts. Burgundy had been swallowed up in the French monarchy, which having for limits the Jura, the Alps, and the Pyrenees, inspired terror by the power of its arms, almost as much as it governed by its manners. The Duke of Savoy now wore a regal crown; and the German empire had acquired, by a more concentrated constitution, a strength formerly unknown to it.

'But the confederates, while they withheld themselves from all participation in foreign quarrels, also prudently restrained their own dissensions, through the apprehension of seeing their neighbours interfere in them. Their numerous civil wars, and the partial alliances which had resulted from them, had established an equilibrium among these small states, which it was equally dangerous to all to destroy. Thus repose and tranquillity again entered these mountains, after having, during several centuries, been banished from them. The calm which succeeded such long and violent storms, blunted by degrees those vehement passions which war had exasperated. The habitude of quiet felicity gave birth to the domestic virtues; and the several tribes of Helvetia, cultivating their lands and giving themselves up to industry, commerce, and the arts, enjoyed life without troubling themselves with what passed abroad: they did not, however, lose the remembrance of what their ancestors had been, nor the confidence

confidence of being able to follow their steps when occasion might require.

'This rapid glance thrown over the annals of history, teaches us at least that the canton of Schwitz was one of the first to lay the foundations of liberty, and that, by its energy alone, and in spite of the feebleness of its means, it was one of those which contributed the most to propagate it in the rest of Helvetia. Faithful to its principles, it never departed from them; and its constitution maintained itself entire till the day of the total destruction of the Helvetic league.'

The gross injustice of the government of Berne towards its subjects of the Pays de Vaud, and its fatal perseverance in oppressive and impolitic measures, with regard to that province, opened to the disturbers of the human race an inlet into Switserland; while its distracted councils, the insubordination of its armies, and the disunion of its citizens, insured to them an easy conquest. Had not the *great nation*, however, practised the most barefaced treachery that is any where to be found on record, had it not lavished professions of regard towards the democratic cantons, and solemnly protested that it was most remote from its intentions to interfere with their governments, or to invade their territories, the brave inhabitants of these sequestered retreats would have driven its pillaging hordes with ignominy beyond the limits of the confederacy. When, also, the most unparalleled breach of faith that ever abused the confidence of man forced the small cantons to rise in arms, the invaders would have been made to recoil back on their own country, and the asylum of virtue and of freedom would have been rescued, but for the unhappy effects of federalism in diverting the attention from the whole to the parts, each state requiring to be covered by its own troops. By this measure they were so divided as to become weak; whereas, had they overlooked individual pretensions, and acted solely for the common cause, they would have formed into one firm and solid mass, and borne on some weak part of the French line, where their success must have been inevitable; while their victory would have proved a signal to the brave sons of Helvetia to rise in arms: but an evil genius was suffered to fix the destiny of a brave nation, and every thing favoured the unrighteous cause.

Our readers recollect that General Brune had assured the little cantons, that the Directory would in no way interfere with their governments; that, not long after these unqualified protestations were made, these very cantons were absolutely and peremptorily required by a proclamation of the same General Brune to abandon the constitutions transmitted to them from

their

their ancestors, and to unite with the other cantons in forming a new constitution; or rather in submitting to such as a foreign power would be pleased to dictate to them.

'This proclamation (says M. Zschokke) became the signal of war, and of the most vigorous preparations for defence. Uri, Schwitz, Unterwalden, Zug, and Glaris, knew the feebleness of their means, and the strength of the colossal power with which they had to contend: but determined to make any sacrifice in order to preserve, if it were still possible, their country and constitution, they did not calculate the disadvantage of their situation, and only listened to the voice of their country crying for succour. Cotemporaries will not assign its just value to this generous self-devotion; but posterity will be more equitable, and it is for posterity to judge the conduct of this people.

'Uri invited its allies to speak in the most energetic manner, and to sacrifice every thing rather than accept the new constitution. On the demand of the canton of Schwitz, it convoked all the others of the Waldstaeten, with Appenzell and the country of St. Gall, to a solemn conference, in which each was to pronounce whether it were proper to receive law from a stranger, and abandon without resistance a system of government which had been accompanied by a felicity of several centuries; or to save the honour of the Swiss name by the employment of all their force, in the most vigorous defence.

'The circular letter of the canton of Uri electrified all the parts of Switzerland to which it was addressed. Every where were seen, not only men in the vigour of life, but old men, children, and even women, without regard to the weakness of sex or age, who prepared to offer their arms for the service of their country.'

The brave children of William Tell, before they had recourse to the alternative of arms, were willing to try what petitions and remonstrances might effect, and deputies were sent to convey them to the agents of the French government. The negotiation, however, proved fruitless; the representatives of these free and independent districts were treated rudely, and harshly; and the demands which they made were haughtily rejected:

'When the deputies of the small cantons were returned home, and had apprised their principals of the bad success of their mission, the rage and indignation of the people arose to their height. A general insurrection took place in all the country between the lakes of Waldstaeten and Constance, and through the whole chain of the Alps. All the heat and fury that passion, enthusiasm, and fanaticism could inspire, was the consequence of these tidings. Fathers and mothers exhorted their children to die for their country. Some invoked the anger of heaven upon the destroyers of the liberty and religion of the Swiss; others prophesied and announced the divine vengeance. The disastrous days of Morgarten and Naefels seemed to be renewed, except that France had taken the place of Austria: the tree of liberty which she was desirous of planting, in the eyes of the enraged inhabitants of the Wald-

Waldstaeten, was the abhorred cap of Gesler, before which they were to be compelled to humble themselves *.'

While France was indefatigable in pursuing hostile measures, dealing out menaces, and issuing imperious declarations,

'These did not humble the spirits of the mountaineers; on the contrary, they inspired them with new energy, by inflaming their rage and pride. Habituated for ages past to be treated by the European powers upon the footing of a free and independent people, how strange must appear to them the denominations of rebels and fanatics which the French agents lavished upon them without reason! France, which, following the example of the Swiss republics, had proclaimed in the face of the world liberty and equality of rights, suddenly advanced to violate the country of William Tell, and spread through it the ravages of war, because it would not receive law from a stranger! France, which preached 'war to thrones and peace to cottages,' now caused its armies to march against the wretched cabins of those herdsmen whose felicity had so long been an object of envy! France, which so lately continued to declare its friendship towards the Swiss democracies, and assured them that it would never break the bonds of union, now attacked these petty communities! It deceived them with the greater facility, as the inhabitants of the small cantons trusted to the promises they had received, not through their opinion of the morality of the rulers of France, but because they gave them credit for greatness of soul enough to disdain having recourse to treachery, while the superiority of their strength offered them sufficient and less guilty means.'—

'In the midst of the afflictive impressions which the conduct of France occasioned, the people of Schwitz united on April the 16th 1798, in a general and extraordinary assembly, in the very place where they had so often sworn fidelity to their constitution, in order to hear the odious proposition which had been made to them. Their deputies, driven from Berne with ignominy, gave an account of their mission, and read the menacing proclamation of the French general.

'It would be difficult to give an image of the effect which the relation of these deputies produced. A dead silence first reigned over the assembly; but presently the liveliest agitation succeeded this apparent calm. No one could comprehend how it was possible to make such demands, and still less, how any one could accede to them. The idea of having enjoyed, during nearly five centuries, an unbounded

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'* In pictures, long anterior to the French revolution, representing the action of William Tell, the latter is always clad in the national Helvetic colours, green, red, and yellow; but it is singular enough, that Gesler, a person whose memory is odious to the Swiss, is constantly dressed from head to foot, as well as his satellites, in the three French colours. This observation may be verified in the chapels of William Tell at Burglen, Uri, and other places. This circumstance has contributed more, perhaps, than has been imagined, to the decided aversion of the inhabitants of the small cantons towards the French.'

liberty,

liberty, and of being required in an instant to sacrifice it to the unjust resentment of a foreign power, excited a warm indignation through the people, and raised their courage and enthusiasm to the highest pitch.

'The assembly then, electrified as it were by love for their country and zeal to defend it, swore by common consent to reject the demands of France, and to maintain the honour of the Swiss name, its religion and liberty. "We acknowledge no other master than God," was repeated on all sides, "and we will serve no other! We will endure no foreign yoke! What is this liberty to which they would have us sacrifice our own? What have we done to the French, and wherefore do they come to attack us? But we have steel, hands, and the example of our fathers! We will die like christians, or live free like them."

'When this first effervescence was somewhat subsided, the people turned all their rage against the new constitution. They decreed, that any apologist of it, either in public or in private assemblies, should be declared guilty of the crime of *lese-nation*, and delivered as such to trial before the tribunals.'—

'It was further ordered, that every man capable of bearing arms should every day perform his exercise, and that the others should be employed in working upon the fortifications. All the absentees, with the exception of those who were beyond the limits of Switzerland, were commanded to return to their homes, on penalty of forfeiture of their right of citizenship.'—

'The canton of Schwitz was indisputably the soul of the alliance, and the centre of all the military operations. No indecision, no feat, paralysed the efforts of the governors of this canton; the terror which the name alone of France inspired in half the globe, was lost upon this people, who did not calculate the strength of its enemy, but only viewed its injustice. Every individual felt that he had a good cause, and considered only the insult offered to his country. If a similar self devotion, and a will equally unanimous, had directed the rest of the confederates, it is to be presumed that Schawenburg and his army would have found their graves in the Alps.

'But the greater part of the cantons and countries which, a few days before, had made the most solemn promises to Schwitz of sharing its perils and glory, violated their oaths when the danger approached. Selfishness, jealousy, a little spirit of local interest, and all the vices of federalism, divided the cantons, towns and villages. It was not the brigades of Schawenburg that destroyed the confederacy; the causes of this destruction were within itself; its fall was inevitable even had not France interfered.'—

'The day on which the fate of Switzerland was to be decided, now rapidly advanced. The French brigades, put in motion, marched in several columns, and threatened the small cantons on all sides with a speedy and vigorous attack. It was then that the confederates began to discover their weakness, and the insufficiency of their means. Individual courage was to compensate the want of numbers, and enthusiasm and temerity, the deficiency of tactics and military experience. All methods were therefore employed to produce these effects

upon the minds of the people, and exalt their spirits to the requisite degree.

'Full scope was given to the eloquence of the priests, who, on their part, fulfilled their mission with all the ardour of fanaticism, hurling from their pulpits the thunderbolts of religion upon the French armies, which, not content with making war upon the earth, seemed desirous to challenge heaven itself. Sacred standards were planted; and the priests promised the joys of paradise to those who should die fighting under their shade. In the cottages and fields were sung patriotic songs accompanied with military music*; in fine, every thing announced the rage of vengeance, and the desire of dying for their country.

'The council of war hastened to profit of this disposition of the people, and to apply to the execution of their projects; but the whole army of the allies, all their forces united, all in short that they had to oppose to the French, did not exceed ten thousand men.

'Notwithstanding this evident inferiority, it was resolved not to wait the enemy, but to go and meet him, and endeavour, by some brilliant action, to rouse the other parts of Switzerland, and restore them to the antient confederacy. The success of this plan, how rash soever it might seem, turned, however, upon a single victory, a single general engagement; for the French, at that time scarcely amounting to 30,000 in Helvetia, would have been assailed in all quarters, and could not have preserved any rallying point. The discontent against them was become general, and their defeat was universally wished. Never did the sentiment of national honour rise higher among the Swiss, than when the petty cantons were seen boldly to make head against the force of France; and even the friends of the revolution would have preferred the success of the Swiss arms, to that of the foreign arms which came to effect it. The half of Helvetia already revolutionised had desired a change, but one without foreign influence, and was inconsolable to see that foreigners took so active a part in this event. If the conquerors of Berne had been obliged for an instant to retreat, their first retiring step would have been the signal of a general insurrection, and of their entire destruction.

'The confederates, although convinced of the importance of success in the beginning, yet neglected the measures proper to obtain it: they knew not how to command fortune, and render the chance of battle favourable to them. While the French dispersed their troops, and formed a line which extended from Berne to the banks of the Thun, it would have been easy for the confederates to unite all their forces, to attack the enemy in the weakest point, and to make an incursion into one of the neighbouring cantons, whose inhabitants only waited for such a step to declare openly in their favour, and join them in falling upon the French. This operation was the more easy, and

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'* The favourite song of the inhabitants of Schwitz, especially of the more enlightened class, and that which the officers sung as they led their soldiers to the foe, had been composed some years before by Henry Zschokke, author of this work, and set to music by Hornschuh, a composer of Berne.'

the more certain of success, as the Swiss joined to the perfect knowledge of the mountains and of their defiles, the advantage of every where meeting with the most exact information of the position of the enemy; whilst the latter could only act at hazard, and upon uncertain grounds.

'Instead of this, the confederates, constantly shackled by the unfortunate spirit of federalism, which induced each canton first of all to aim at completely covering its own boundaries, partitioned their small army upon a line of about twenty leagues in extent, thus presenting at all the points of their territory a vain image of defence, and in no part a real and sufficient force.'

The final issue of this contest is sufficiently known.

The author's account of the Swiss hero will not be unacceptable to our readers:

'Aloys Reding, at this period chief of the troops of Schwitz, and the soul of the allied army, had studied the art of war in the service of Spain, in which he was a colonel. He had lately retired into the solitude of the valleys of his country, and devoted his leisure to friendship, to the muses, and to the cultivation of his lands. Long before the revolution, he wished for improvements in the federative system, and desired that his country should enjoy an useful and genuine liberty: but his heart revolted at the idea of a revolution affected by a foreign power, and at the still more hateful idea of seeing his country fall under the dominion of France. Such were the motives which induced him to unsheath his sword, and to show himself worthy of the Swiss name, and of his brave ancestors.

'His loss of a young and tenderly-beloved spouse had left in his soul a deep melancholy, which perhaps made him still more eager to engage in the hazards of war. Provident, frank, brave, attached to his country, preserving his coolness and self-command both in prosperity and adversity, he became in a short time the favourite and the hope of his people.'

By an express article of the treaty of Luneville, the right of the Swiss to form a constitution for themselves was acknowleged; and this right was afterward personally recognized by Bonaparte in his conferences with Aloys Reding. The French party in Swisserland, however, treacherously and tumultuously obstructed its formation;—assuming an illegal and usurped authority, they created a different one;—and this political regimen, thus unlawfully formed, is imposed on Swisserland by French influence. The French troops being then withdrawn, the Swiss rose as one man against the new constitution, and set about preparing one better adapted to their situation, prejudices, and habits; while the chief Consul, not less regardless of his engagements than the Directory, in violation of his faith pledged at Luneville and to Aloys Reding, arrested their career, and forced them to submit to a constitution dictated by him!

Jo.

ART.

ART. X. *Oberon:* or Huon de Bourdeaux: a Mask. And Orestes: a Tragedy. By Wm. Sotheby, Esq., &c. Crown 8vo. 5s. Boards. Cadell and Davies. 1802.

WE have repeatedly borne our testimony to the elegance of Mr. Sotheby's compositions, and to his steady zeal in the defence of good principles, amid all the dissipation of modern literature. In this volume, we find a pleasing abridgement of Wieland's Oberon, thrown into a dramatic form, and enriched with much good writing and many virtuous sentiments.

As a first specimen, we select the Song of the Fairies:

'1st FAIRY.

'Thro' time untold where lurk'd the toad
Clos'd in the cold rock's central womb,
I drove him from his lone abode,
And there I pin'd in sunless gloom,
Doom'd o'er the dreams of bliss to weep,
When cradling lilies rock'd my sleep.

'2nd FAIRY.

'I crept beneath the thorny shade
Where snakes had cast their coily sloughs,
There, forc'd by fate, I wreath'd my braid
With berries pluck'd from night-shade boughs:
And as the rude weed swell'd my hand,
I sigh'd for flow'rs of fairy land—

'3rd FAIRY.

'From yon scath'd oak, at twilight grey,
When the horn'd owlet left her young,
I scar'd her moon-ey'd brood away,
As on their nest my limbs I flung:
And there I thought on fairy bow'rs,
And saddened o'er remembered hours.

'4th FAIRY.

'Where mortal thing might never breathe,
While loitering ice-drops, one by one,
Burst on the fretted flints beneath,
And turn'd each earthly form to stone,
I wept for fairy mountains clear,
And told each ice-drop with a tear.'

In Act 2d, the strains of these fantastic personages assume a higher tone:

'CHORUS of FAIRIES.

'Hail golden Hope—we heard the King,
And shall again on boundless wing,
At will our revelry renew,
And pledg'd in acorn bowls, sip heav'n's ambrosial dew.

'1st

'1st FAIRY—*Solo.*

'On earth when Eve's pale twilight gleams,
I, on the gossamer with viewless pace,
The moon will challenge to the race:
And laugh to see her swiftest beams
Silvering the web that dances in the wind,
Glide, as I reach the goal, a fairy's length behind.

'2nd. FAIRY—*Solo.*

'I, o'er the sea my course will take,
And catch with unwet feet the less'ning sail
That vanishes before the gale—
And sliding in its level wake,
Number the sparkles of the foamy tide,
That, glittering o'er the prow, stream radiance far and wide.

'3rd FAIRY—*Solo.*

'I, thro' the path of air will soar,
And when the summer meteor flames afar,
Swifter than glance of shooting star,
Will flash its transient course before:
While scatter'd from my wings in dew-drops bright
The rain-bow's lunar arch o'er-canopy's my flight.

'4th FAIRY—*Solo.*

'I, on the sun's slope beam will ride,
And as it sinks th' atlantic wave beneath,
From clouds of roseate lustre wreathe
My robes of light, by fancy dy'd:
Fringe with etherial braid my new-fledg'd wing,
Then spread its feathery pomp, and fan the fairy king.

'CHORUS.

'Hail golden hope! we heard the king
And shall again on boundless wing,
At will our revelry renew,
And pledg'd in acorn bowls sip heav'n's ambrosial dew.'

The general dialogue of the piece, though correctly written, is not distinguished by any passages which require particular notice.

The tragedy of Orestes possesses much force of imagery and sentiment; and Mr. Sotheby's knowlege of the Grecian models has elevated him beyond his usual pitch. We extract one scene, between Orestes and Calchas:

'*SCENE changes to the Temple of Jupiter.*

CALCHAS—(*to a Minister.*)

'Now let him enter. The clear sparkling flame
(Orestes *slowly advances.*
Gave no ungrateful sign—approach the altar.

ORESTES.

Hail!

CALCHAS.

Not reluctance, youth! nor aught of honor
Due to the minister of highest Jove
Delay'd thy entrance: holy rites enjoin'd it:
And suppliant Kings must wait 'till fav'ring omens
Permit approach.—

ORESTES.

Hail Seer! I bring thee not
Off'rings of votive gold, and precious incense:
No victim led by me shall stain the altar.
If heav'n, ungifted, hears not him who calls,
Seer, I retire in silence.

CALCHAS.

There are gifts
Of higher rate than gold and hecatombs:
Gifts, which from op'ning heav'n draw blessings down:
The tribute of an uncorrupted heart.
If such thy offering, speak—

ORESTES.

My years are few.
As yet---these hands are pure---but---

CALCHAS.

Freely speak.

ORESTES.

If thou can read the heart, in mine behold
The bitter conflict of a troubled spirit,
That agonis'd by woe, doubt, fear, despair,
Dreads e'en the wreck of reason.—Seer, assist me.

CALCHAS.

Poor youth! I pity thee—I will assist thee—
My voice shall still the tumult of thy soul.

ORESTES—(*with vehemence.*)

Not that—thou must not still my soul—oh rather
Urge to its height the storm, that so my arm
May execute its mission—holy Seer!
Thou talk'st to one of that disastrous mood
Whose mind no longer master of itself
Acts not its resolve. Seer! I am bound
To deeds that shock my nature. 'Tis most horrible!
Turn this to stone, (*striking his breast*) that, at the name of mother
Sheds drops of blood, and I will do the deed!

(*falls on the altar.*

CALCHAS—(*after a pause.*)

'Tis He—the long expected—(*aside*) 'tis th' avenger.
Thou must perform, unquestion'd, heaven's command—

ORESTES—(*rising gradually almost to frenzy.*)

Prophets may speak, and Oracles pronounce
"So move"—"this deed be done"—'tis Heav'n's command"—
But they forget that the poor instrument

To

To execute that will, is Man, weak Man.
Rocks, at the call divine, leap from their base,
Earth, at the word, deep to its centre shakes,
The sea, and the wing'd storm, and fiery bolt
Wait but a nod. Be these the instruments
To execute heav'n's vengeance on the world.
But let not man be urg'd to shed man's blood.
What, if the guilt of an abandon'd woman
That slew her husband, calls down signal vengeance!
Must the son plunge a dagger in the heart
Of her who bore him?

CALCHAS.

Aid inspiring Jove!
Offspring of Agamemnon, Troy's great conqueror,
Orestes!—

ORESTES.

How—Orestes! why thus call
A wandering stranger, a lost wretch unknown?

CALCHAS—(*with enthusiastic dignity.*)

I know thee—know thou me—'tis Calchas speaks.
I, I, the minist'ring Priest, stood at the altar:
This consecrated blade I hold before thee
Gleam'd in my hand, descending swift in act
To pierce the proffer'd bosom of thy sister,
Whom Agamemnon to Diana's ahrine
Had led, his first-born, Iphigene, to slaughter.
The virgin knelt beneath me, and to heav'n
Look'd up with fearless eye. Before me, bow'd
The father, in his mantle veil'd from sight.
I heard his groan: deep as the groan of death.
The father felt: the chief of Greece obey'd.
Taught by thy father, son, obey the Gods.
Fir'd by thy sister----

ORESTES—(*seizing his dagger.*)

Seer—'tis done—thy dagger!

CALCHAS.

This never shall be stain'd with human blood.
It flashes on my mind. Thy zeal transports thee,
Hast thou forgotten it? not this the blade—
Heav'n, in fit time, will arm thee with a weapon
Forg'd for the dead.—

ORESTES—(*full of horror.*)

'Tis true---the very blade
(Said it not so?) with which she slew my Father.
So spake the Pythian: and that none, save that,
And trusted to me by a mother's hand
Must do its office. How shall I obtain it?

CALCHAS.

Go forth—thou shalt possess it—now delay not.
Go to thy father's tomb, invoke his shade:

There fate's portentous sign shall fix thy doom.
If unappeas'd the spirit claim revenge,
Strike, without dread—farewell.—

ORESTES.

Seer!—I obey—

(*Exeunt.*)

The contents of this small volume have afforded us much pleasure; and we recommend the publication to the attention of our readers, as calculated to interest both the learned and the unlearned.

Fer.

MONTHLY CATALOGUE,

For DECEMBER, 1803.

MINERALOGY.

Art. 11. *Specimens of British Minerals*, selected from the Cabinet of Philip Rashleigh, of Menabilly, in the County of Cornwall, Esq. M.P. F.R.S. and F.A.S. With general Descriptions of each Article. 4to. pp. 26. and 21 Plates. 1 l. 11 s. 6 d. Boards. Nicol.

In the 25th volume of our New Series (p. 320), we announced the first part of this splendid work. We then hinted that the pencil is very inadequate to a satisfactory delineation of universal specimens: but we allow that it may sometimes render a pretty faithful copy of a few of the more prominent characters; and in this secondary point of view, such performances as the present may aid the effect of verbal descriptions.

Among the most remarkable of the copper ores here particularized, we observe two curious varieties of arseniate, thin six-sided plated crystals, of a milk white colour, and double four-sided pyramids, of a sky blue.—Of the tin ores, that which comes from Pednandra is found in four sided crystals, covered with 'a white hydrophanous calcedony, that imbibes water immediately, and becomes transparent, so as to shew the tin ore very distinctly, and soon becomes opake again.'—We are also presented with some curious samples of galena, serpentine from the Lizard, three figures of a bivalve fossil from Colebrook Dale, a section of the stream work at Poth; and 'a fossil mamillary echinus, with a flint filling the shell, and running through it, being both unbroken.' Hence it is inferred that the flint must have been in a fluid state, without the agency of fire; as, according to the igneous hypothesis, the shell would have been converted into lime.

The descriptions which accompany the plates are short and meagre. Indeed, the editor disclaims all pretensions to an intimate acquaintance with the science and nomenclature of modern chemistry; and it is proper that intending purchasers should be duly apprized of this circumstance.

Art. **Muir.**

BOTANY, &c.

Art. 12. *Richardi Relham, A.M. Villæ de Hemingby in agro Lincolniensi Rectoris; Regiæ Societatis Londinensis Socii; et Societatis Linnæanæ Assoc. Flora Cantabrigiensis, exhibens plantas Agri Cantabrigiensis indigenas, secundum Systema Sexuale digestas: cum characteribus genericis, diagnosi Specierum, synonymis selectis, nominibus trivialibus, loco natali, tempore inflorescentiæ. Editio altera.* 8vo. pp. 580. 8s Boards. White, &c. 1802.

An account of the first edition of this respectable work, and of its supplement, was given in our 73d volume, p. 371, and the 74th vol. p. 389. In the present edition, the aukward position of Banhin's name in the list of references can no longer offend us, for it has wholly disappeared; and its absence is more than compensated by those of *Bolton*, *Sowerby*, *Roth*, &c. Of new genera, we observe *Æcidium*, *Alyssum*, *Auricularia*, *Beta*, *Centunculus*, *Coriandrum*, *Craterium*, *Datura*, *Farinaria*, *Fistulina*, *Monotropha*, *Ornithogalum*, *Rhizomorpha*, *Rotbollia*, *Rubia*, *Ruppia*, *Salicornia*, *Sphærocarpus*, and *Trichia*. Not fewer than 281 species have been added, making the list amount to 1344—a greater number than Lightfoot particularized in his *Flora Scotica*.

We wish that the plates of the former edition had been retained: but we hear with sincere concern of the author's inability to pursue his researches in a manner suitable to their importance:

'FLORA *autem* CANTABRIGIENSIS *majores thesauros jactaret, si dies auctori feliciores arrisissent; si rei familiaris angustia itinerum sumptus non omninò vetuisset; animumque frustra luctantem miseriæ quotidianæ prægravâssent.*

'*Aliæ etiam causæ silentio non prætereundæ sunt; specimina in Herbario (eheu non amplius meo) conservata, plurima amicorum defunctorum pignora, in possessionem* SOCIETATIS LINNÆANÆ *transiverunt: librosque*, Floræ meæ *fructus, ut venderem, sæva constrinxit necessitas.*'

As it is only by the multiplication and careful revision of such Floræ as the present, that we can ever hope to ascertain with precision the vegetable contents of our native country, we trust that the university of Cambridge, or Lord Hardwicke (to whom this edition is dedicated), or some patron of the sciences, will do more than peruse the above affecting statement.

Muir.

POLITICAL.

Art. 13. *A Reply to two Pamphlets, in Answer to* "The Question, Why do we go to War? temperately discussed, according to the Official Correspondence:" one entitled "The Reason why," and the other "Observations suggested, &c." 8vo. 2s. Wallis.

A certain degree of political initiation is essential to the perfect development of cabinet mysteries, which more or less prevail in all great affairs of state. Politicians, when most communicative, do not unbosom all their secrets; and there are some who, by adverting to the Protean shape which the object of the late war assumed, and by regarding the present as its legitimate offspring, are not satisfied with the public reasons assigned for its justification, but suspect that the

real motives are not avowed. The author of the *Question*, &c. (who, if public rumour has rightly given his name, is a man of singular learning and vigour of intellect,) at the commencement of the renewal of the contest, expressed his doubts of the validity of those reasons for going to war, which were furnished to the public in the Official Correspondence; and being invited by his anatagonists to review the ground which he occupied in his first pamphlet, he now firmly perseveres in his original opinion. He regards the whole evidence adduced in the Official Papers rather as pretexts than as substantial reasons for war; and neither to the author of the "*Reason why*," nor to the writer of the "*Observations*," does he yield a single point: but he states more at large his persuasion that the war could and ought to have been avoided,—that gaining time was as much an object of importance to us as to the enemy,—that as to Malta and Egypt they are matters of no importance to this country,—and that we ought not to make the Mediterranean a bottomless pit to swallow up the seamen and treasures of this country. He believes the First Consul to have been serious when he said, that "there would have been nothing he would not have done to prove his desire to conciliate; participation in indemnities as well as *in influence on the Continent*; treaties of commerce; in short any thing that could have given satisfaction or testified his friendship." There was certainly reason for questioning his sincerity respecting his friendly disposition towards our influence on the continent: but we shall not here discuss either this or any other point. We leave it to the Genius of History to penetrate the hidden motives of statesmen, and shall dismiss this pamphlet with remarking that, however certain surmises prevent unanimity of opinion respecting the causes of the war, we truly display that unanimity of defence which, with the blessing of Providence, must secure us against all efforts of the foe. **Mo.y.**

Art. 14. *The Reason Why*, in Answer to a Pamphlet, entitled, "*Why do we go to War?*" To which is affixed, *A Rejoinder to the Reply* of the Author of "Why do we go to War?" 2d Edition, with Additions. 8vo. 2s. 6d. Stockdale.

Replies and Rejoinders are generally occupied with personal altercations, in which the public have no great concern. So it happens for the most part in the instance before us. This author retorts the accusations of his antagonist, charges him with misquotation and misrepresentation, and, while he uses the lash with much dexterity, takes credit to himself on the score of compassion. The argument is so much exhausted, that little new can be expected in support of the justice and necessity of the war; instead, therefore, of entering into the reasoning of this Rejoinder, we shall satisfy ourselves with giving a single specimen of the manner in which the contest is conducted.

'As for the phrase of "*every one* has read the Correspondence," with which our author finds fault, every liberal minded man will understand it as a common mode of expression, when a publication has been *generally* read. I certainly did not mean, that *every individual being in the British Empire* had performed this task, and I willingly admit, that our author is *critically* exact, when he *politely* says "Every,

"Every one has *not* read the Correspondence," This is the only victory he has gained, and a most glorious and important one it is. I must, however, beg leave to rectify a slight error into which he has *inadvertently* fallen, a few lines farther on. He charges me with having written sixty-four pages to unravel the Correspondence. Now he really totally mistakes the matter. I did not write my *sixty-four* pages to *unravel* the Correspondence, but to *unravel* his comments upon it, to detect his artifices, and to expose his misrepresentations.'

By this happy mode of managing the controversy, it may be made to last as long as the war, but probably not to the satisfaction of the public. Mo.

Art. 15. *Eventful Period! Exhortation of the French in England to the French in France, and all over the World.* Translated by Mr. King. 8vo. 1s. Parsons.

From calling names, little benefit is derived even to a bad cause; and a good one, like that of Great Britain at the present moment, should reject the practice with disdain. An enraged *emigré* may write in the following style, but Mr. K. might have spent his time better than by translating it into our language:

'Crouching, kneeling, base, abject people! who have sacrificed the dignity of the nation to elevate one man,—all the natural native growth of France is blasted by this noxious exotic transplantation; that, Colossus like, overtops all other plants, and by its baneful influence dwarfs them. This new-fangled mock reign is the climax stigma of France, the political being of the whole nation is sacrificed to the monstrous ambition of this excrescence of deceit and endless apostacy.'

The whole pamphlet is in this strain. Do

Art. 16. *Reflections on the Invasion of Great Britain by the French Armies;* on the Mode of Defence; and on the useful Application of the National Levies. 8vo. 3s. Cadell and Davies.

This author is not only a man of experience, but of sound judgment; and his hints relative to the conduct which ought to be pursued by us, in case of Invasion, merit general attention. He has divided his pamphlet into three chapters; the first treats of the Probability of an Invasion, and on the necessary Preparation;—the second, of the Mode of arming, arranging, and training the National Levies;—and the third, On the Mode of Defence against an Invasion. Admitting the possibility of Invasion, he contends that prudence requires that we should be prepared for it, and leave nothing to the power of fortune. Among other means, he advises the appointment of a Council of War, composed of the most intelligent and experienced military and naval officers; with the *exception* of the Commander in Chief, the First Lord of the Admiralty, the Master General of the Ordnance, the Secretaries of State and of War, whose thoughts ought not to be diverted from the laborious duties of their respective situations.

On the subject of training the National Levies, he insists on the necessity of teaching the recruit to load and fire properly, quickly, and *with good aim*; and he reprobates the practice of *platoon-firing*, in which the attention is directed from the important object of doing

execution to the parade of making a grand explosion. As the terror of fire-arms is now greatly abated, and as close combat will be brought more and more to decide the battle, he strongly recommends the use of pikes; and particularly that every company should consist of a certain number of pikemen; because the pike, he observes, 'for close fight, is incomparably superior to the bayonet, which is an unwieldy weapon, and of such small length, that the front rank only can use it with much advantage.' He adopts the idea of Marshal Saxe respecting the impropriety of halting to fire before the charge is made: but he does not, with him, reprobate all firing on a close attack. Of the discharge from the musket he would avail himself; and that it may not fail of effect, he advises that the firing should be at the moment when the soldier arrives at the enemy.

This writer adopts the opinion of a great commander, who said that battles were the resources of weak Generals; and therefore, in his third chapter, he recommends, in case the enemy should land, that a decisive engagement should be avoided, and that we should pursue the system of harrassing him by incessant attacks on his flanks, rear, and every salient point, night and day; so that he shall be constantly harrassed, alarmed, fatigued, and at length exhausted. From an examination of the nature of the country, as covered with inclosures, he infers that England is fully capable of resisting an Invasion, and of gradually destroying the hostile army. Adverting to the case of Ireland, he suggests that, as a matter of good policy, the Catholic clergy should be subsisted at the national expence; and that the Catholics should be restored to their civil rights, in order that there may be an *union of mind and of condition*, as well as of Government, between the two islands. Moy.

Art. 17. *Observations on a Ministerial Pamphlet*, entitled "Cursory Remarks of a Near Observer upon the State of Parties during the Administration of the Right Hon. Henry Addington." By an Anxious Spectator. 8vo. 2s. Ginger.

Politicians, like Papists, have their favourite Saints. Mr. Pitt is the god of this writer's idolatry, whose vindication is undertaken with all the enthusiasm of religious zeal, against the direct charges and sly insinuations of the Near Observer. It is contended that the faith and consistency of the late ministry are not impeached by the cold assistance which they give to their successors; that their engagement to support was not unconditional; and that duty to their country prohibited them from abetting measures of rashness and feebleness, such as the peace, and the conduct of government towards Ireland. How far this comes home to the exact state of the case when Mr. Pitt resigned and Mr. Addington accepted the office of Prime Minister, we cannot undertake to decide. When the parties themselves are silent, conjecture labours in vain to supply adequate evidence: but, while writers only speculate, they can display their spleen and their partiality. This Anxious Spectator disclaims the mean practice charged on the Near Observer, of insulting by *insinuation*: but he soon forgets himself, and conveys his contempt in tales and low comparisons. One specimen will suffice:

'Should

'Should the servants who are sent to keep places at the theatre take it into their heads to invite some of their fellow servants and low acquaintance to go with them to see the play, and when the family come to the box door, was *Mister John* or *Mister Henry* to address his master and mistress thus, "Pray walk in and be seated, this is only Mr. ——, valet de chambre to Lord ——, that is Mr. ——, coachman to the Marquis of ——, this is Mr. ——, butler to his Grace, and this Mr. —— , cook and principal taster to the Right Reverend ——; step in, Sir, walk in, Madam, you will find them very good company, perfectly civil, and though not the *best spoken* men in the world, I assure you they have a very pretty taste for theatricals, and understand stage effect; I am sorry that there is not room for *all* your company, but we will do all we can to accommodate:" I leave the reader to judge what must be the astonishment of the party and the feelings of the master on hearing such an address; the gallery, indeed, may be amused by the joke, but the interests of the theatre must be ruined, were the manager to suffer it to pass with impunity. This may be applied by those who reflect that "All the world's a stage."

That there are circumstances in Mr. Addington's proceedings relative to the Peace which subject him to some censure, it is as difficult to deny as that Mr. Pitt's resignation still remains a mystery. If the latter was really occasioned by his pledge on the Catholic question, it does him honour; and it is a source of the deepest regret that the only effectual remedy for an evil which threatens the safety of the empire has not been yet applied.

Art. 18. *'Regulations of Parochial Police;* combined with the Military and Naval Armaments to produce the Energy and Security of the whole Nation. The 4th Edition, corrected and enlarged, 8vo. 1s. 6d. Hatchard.

The first edition of this sensible pamphlet, which appeared in 1797, was not overlooked by us (See M. R. vol. xxii. p. 463, N. S.). This enlarged impression furnishes some additional remarks on the vengeance which rankles in the heart of Bonaparte towards this country; and on the means of foiling his rage, and of preserving order and tranquillity in every parish, while the armed force is employed in combating the invaders. The author of this pamphlet, we are told, could appeal (if that appeal were consistent with their safety) to several of the most respectable Members of the Senate, Tribunate, and Legislature of France, on whose minds the perpetual language of Bonaparte, since his elevation, concerning the necessity of destroying England, has always 'dropped like corrosive poison.' As we possess, however, the spirit and ample means of resistance, we require only order and discipline to defeat any hostile attack of the enemy. This writer does not seem so much alarmed at the idea of the force which may be brought against us, as at that of the disorganization, plundering, and atrocious violence which would succeed on the removal of all our armed force from the interior to fight the enemy on their landing. Revolutionary France, he thinks, furnishes us a *warning* in this case, though not an *example.* He expresses his fears of the multitude of wandering servants, which would then be let

loose on the public; and he reminds his readers that, of all destructive and ravenous monsters, the most cruel and insatiable is the unrestrained populace of an opulent and corrupt society.

The outline of the plan of prevention was given in our former article. Mo-y.

Art. 19. *The Parallel between England and Carthage, and between France and Rome examined.* By a Citizen of Dublin. 8vo. 2s. Murray.

With the enemy, this is a favourite comparison; and Frenchmen represent the present war as a struggle between commercial and territorial, or between physical and artificial strength: but this is by no means a correct statement of the case. We trust that we may say, we unite in our character the valour of the Romans, with the commercial spirit of the Carthaginians. Our natural resources, all things considered, may be called equal to those of the enemy; and our military character cannot, with the shadow of justice, be represented as inferior to theirs. It is politic, however, to remove the impression which France is endeavouring to make on the minds of men so much to our disadvantage. We possess not the Carthaginian character, tread not in their steps, nor do we expect their destiny. France has never obtained a signal victory over us at sea; and she never dared, in any negociation for peace, so far to insult the high and independent spirit of Britons, as to propose the surrender of our floating bulwarks. The author of this pamphlet shews that France greatly resembles Rome in her sanguinary ambition and perfidy of character; and, at the same time, he proves that Great Britain has more powerful means of resisting the ambition of the one, than Carthage possessed for resisting the other. Unlike the Carthaginians, we depend not for defence on mercenaries; unlike the Carthaginians, we retain the superiority at sea; unlike the Carthaginians, we are not divided by factions, but, thank God! firmly united in the hour of our country's danger. *Delenda est Carthago* is then an idle threat. Dº

Art. 20. *The substance of a Speech intended to have been spoken in the House of Lords*, November 22, 1803. By R. Watson, Lord Bishop of Landaff. 8vo. 1s. 6d. Cadell and Davies.

As this venerable ecclesiastic stands deservedly high in the public opinion for sound judgment, united with extensive knowledge, and for an ardent zeal to promote the general welfare, combined with the most enlarged and liberal sentiments, his thoughts on the present state of our affairs will be peculiarly acceptable to numbers of his countrymen. We are glad, therefore, that though his domestic affairs did not permit him to leave the philosophical retirement of Calgarth-Park, to attend his public duty in Parliament, he has, in a speech *intended to have been spoken*, addressed himself through the press to the nation at large. Dr. Watson vindicates the justice of the war, on a ground which he occupied in a thesis forty-five years ago, when he was a *Soph* at Cambridge, against the authority of Grotius, taking the *affirmatur* on the following question:—*Jure Gentium arma recte sumuntur, ad imminuendam crescentem potentiam, quæ nimium aucta nocere potest.* Passing over affronts and slight injuries, he rests the

justification of the war on the dangerous aggrandizement of the enemy. He contemplates the military ardour and unanimity of the country with satisfaction, and kindly endeavours, by his patriotic advice, to give effect to our present exertions. To avert from ourselves the mischiefs which impend over other nations, to extricate the country from danger, and to frustrate all the attempts of the enemy, he advises that those who are included in the first class of the Defence Bill should be not only called out and trained to the use of arms, as a temporary expedient, but that this should be continued as a permanent measure; that we seriously undertake the liquidation of the National Debt; that we make a provision for the Catholic Clergy in Ireland; and that we [redacted] unite the Dissenters in England firmly to the Government by the repeal of the Test and Corporation Acts. 'If,' says he, 'you would make men good subjects, deal gently with their errors; give them time to get rid of their prejudices, and especially take care to leave them no ground for complaint.' This is sound advice, which equally does honour to the Bishop's head and to his heart: but alas! statesmen are not always to be persuaded that justice is wisdom.

Art. 21. *Observations suggested by a Pamphlet entitled "The Question, Why do we go to War? Temperately discussed according to the Official Correspondence."* In a Letter to a Friend. 8vo. 1s. Hatchard.

In this neat and dispassionate reply to the abovementioned able pamphlet, the writer does not deem it necessary, in order to support the side which he has espoused, to heap abusive epithets on his opponent, and to represent him as a traitor and partisan of France. After a perusal of this little tract, it is difficult not to assent to the conclusion at which the author arrives; namely, that the highly momentous struggle could no longer have been deferred. We are of opinion, however, that he would have found his task easier, had he placed the question on more general grounds, and connected it less with the case made by ministers. We were glad to find a gentleman extensively engaged in commerce hold out consoling views respecting that essential source of our power, and representing it as secure of ultimately triumphing over the hostility of our rival.

Art. 22. *The Correspondence between His Majesty, the Prince of Wales, the Duke of York, and Mr. Addington;* on the Offer of Military Service made by His Royal Highness the Prince of Wales. 8vo. 1s. Miller.

Though we do not venture to offer an opinion on the subject at issue between these Royal Correspondents; we shall not be accused of exceeding the limits of our duty by observing that, as far as good writing is concerned, the palm of victory unquestionably belongs to the Prince of Wales; whose letters are beautiful and striking pieces of composition.

Art. 23. *Observations occasioned by the Pamphlet called "Cursory Remarks;"* or, A Comparative Glance at the Political Merits of the Right Hon. H. Addington and Mr. Pitt. 8vo. 1s. Jordan.

This writer takes the same side as the "Near Observer:"—but, instead of employing keen and elegant satire against the ex-minister, he

he reminds us of the conduct of the Roman mob towards the degraded Sejanus Mr. Pitt is roughly charged with baseness, profligacy, arrogance, and jesuitical tricking; his return to office is deprecated; and the hopes of the nation are represented as fixed on the judgment and moderation of the present Minister. Mr. Pitt will not be wounded, nor Mr. Addington flattered, by such Observations.

May.

POETRY.

Art. 24. *Britannicus to Buonaparte.* An Heroic Epistle, with Notes. By Henry Tresham, Esq. R.A. 4to. 4s. Hatchard.

Facit indignatio versum. – Glowing with resentment at the daring attempt of the French Government to invade the liberty of the British Press, Mr. Tresham exchanges the pencil, as not being fully adequate to express his feelings, for the pen; and in nervous and flowing lines, he pours forth the full tide of his indignation on Bonaparte: whose life is reviewed by the poet, and the dark traits in whose history are thrown on the canvas with striking prominence. Mr. Peltier finds in Mr. T. a most strenuous advocate and warm admirer; and the Consul is stigmatized for exerting his gigantic power to crush so humble an individual.

'And what is PELTIER? – Fated to endure
The heart-struck pangs no suasive skill can cure:
From soft endearments, sweet affiance torn,
Down the fell tide of regal ruin borne;
His drain'd exchequer yields no vast supplies,
Suborns no statists, marshals no allies,
Nor fleets, nor elements obey his nod,
PELTIER is neither NELSON nor a God *!'
The brindled monarch of the frighted plains
The distant shout of impotence disdains;
The towering eagle stoops not from the sky,
Arm'd with JOVE's thunder, to destroy a fly;
Then why should great BRIAREUS, where he stands,
Grasping at empire with ten thousand hands,
Snatch precious moments from aspiring toil,
To dull the flame of one poor poet's oil?'

Pope, in his "Eloisa to Abelard," has beautifully described the advantages which result from the art of writing, in the passage beginning with *Heaven first taught Letters.* Mr. Tresham, if not exhibiting lines equally captivating, has at least been very happy in displaying the benefits which mankind receive from the discovery of printing, and the Freedom of the Press:

'What mighty magic wakes the latent springs
Of conscious crime? Lends Wit's keen arrows, wings?
And moves the CONSUL 'midst his guards to feel,
A pointed diction more than pointed steel?
Yes—'tis a magic none but fools despise,
The wond'rous charm of speaking to the eyes—

* This line discovers strong symptoms of the *bathos*, a disease with which poetry is often infected.

Of

Of painting sound—embodying thought at will—
An art that sheds eternity on skill,
Binds the vast range of nature to its plan,
And gives almost omnipotence to man.
Aided by Learning's magic tube we rise
To purer transports of primeval skies;
Bask in the splendour of the milky way,
The brighter zodiac of the soul survey,
Stars, long since set, relume night's sable throne,
And pour a blaze to sordid sense unknown.'

'Hail! art celestial, rival gift of tongues,
The framing words without the aid of lungs,
That yields the minstrel on his couch of care
Arms and the means to wage eternal war!'

'The glorious Freedom of the Press dilates
The heaven of Science to benighted states,
And men and angels with sublime acclaim
Bind letter'd brows with wreaths of deathless fame.'

On the subject of the Invasion, the poet, with the soul of Britannicus, knows no sensations of fear, but scornfully dares the Enemy to make the threatened experiment:

'Come, fierce DESPOILER—all thy terrors bring—
Unleash thy Blood-hounds—give thy Harpies wing—
In wrath sublime chastise a wild of waves,
And shackle Neptune like Parisian slaves:
Come, and BRITANNIA's mines of wealth behold,
Starve at her banquets of forbidden gold,
And learn, aghast, with an erected ear,
High mettled BRITONS look with scorn on Fear:
Of gentlest manners, and of noblest mind,
A race illustrious, of the lion kind;
Slow to chastize, yet, roused to mortal fight,
Brave, unrelenting, and of matchless might.'

Besides the notes subjoined to the text, this poet and artist has given a frontispiece which represents the image of *Fame* inscribing on a shield the memorable actions of conspicuous characters, (an idea borrowed from Trajan's pillar,) and under it is a picture of Bonaparte addressing himself to the river god Nilus, (who is drawn after the famous statue of Bernini at Rome,) whom he intreats to receive and shelter him on his return from his disastrous Syrian expedition. Moy.

FAST-DAY SERMONS, *19th October* 1803.

Art. 25. *The Sentiments proper to the present Crisis*:—Preached at Bridge-street, Bristol. By Robert Hall, A.M. 8vo. 1s. 6d. Button.

By former specimens of this preacher's abilities, we were induced to expect, on the present occasion, a discourse of no ordinary character; and we have not been disappointed. Talents and ingenuity are so eminently conspicuous in the sermon before us, that it cannot fail to excite more attention than is usually bestowed on compositions of this class: but we cannot admit the genuineness of all the author's

author's reasoning, nor subscribe to the accuracy of every sentiment. Mr. Hall has made many judicious observations, and suggested various important sentiments, which are well adapted to the present crisis; and which, though not absolutely new, are elucidated and enforced by a clear and nervous eloquence: but, when he enters into the field of controversy, his zeal in combating certain erroneous speculations seems to betray him into rashness, and to the substitution of declamation for calm argument. If we agree with him in believing that 'the welfare of a nation depends much less on the refined wisdom of the few, than on the manners and characters of the many;' that, in the contemplation of national sins, we are not merely to consider iniquities tolerated by the law, and to transfer our vices to ourselves; that it is the duty of Christian preachers to condemn laxness in morality, and to resist all those theories which tend to subvert its true foundation; yet we cannot, under the idea of reprobating even 'unholy speculations,' approve of any stigma being cast on philosophical inquiries into the principles of virtue; nor of attempting to discourage ethical research, by enveloping the subject of morals in the veil of mystery. Why should it be deemed 'a presumptuous curiosity to inspect the foundations of Christian virtue?' May we 'invariably appeal with safety, without looking abroad, to a moral impress on the mind?' Is there no such thing as an erroneous conscience? We most cordially admit that 'we need not seek a deeper foundation for our duties than the *will* of the Supreme Being:' but are there not cases in which we are forced to consider the principles of the Divine Government, in order to learn the Divine will? Do not the scriptures encourage us to be moral accountants, and urge us to virtue, on the ground of its being expedient and useful? Do they not even call on us to calculate its profits and advantages?—For our own part, we cannot perceive the mischief which Mr. Hall apprehends from inquiries respecting the foundations of virtue, nor admit that 'they are laid too deep for our scrutiny.'

As an *argumentum ad hominem*, we shall pass to observe that, if our duties are to be resolved into the *will* of God, how can Mr. H. with any consistency exhort to the observance of the Christian Sabbath as a religious duty? Is there any divine command for this purpose? The 4th Commandment, if obligatory on Christians, enjoins the observance of Saturday; and where is the order in the Scriptures for changing it to the First day of the week? We do not put these questions to dispute the propriety of a day of religious rest: but we would observe to Mr. Hall, that the duty rests here in a great measure on its expediency or utility, and not on any positive and express command in the Christian divine code.

It is of as much importance for the purpose of religion to shew what the Gospel really contains, as it is to prove its authenticity. By these means, we may hope to learn the genuine duties and imbibe the spirit of Christianity: but unbelievers will not be much enlightened by being informed that 'Infidelity is nothing more than a noxious spawn bred in the stagnant marshes of Christianity.' This metaphor, like some of Mr. Burke's allusions, conveys no clear picture to the mind. In no map of religious geography, were the *stagnant marshes of Christianity* ever laid down.

On

On the subject of the threatened Invasion, Mr. Hall's thoughts are excellent. He considers it 'as an happy circumstance that the contest did not take this shape at an earlier period, while many were deceived by certain specious pretences of liberty into a favourable opinion of our enemies' designs.'

Before we take our leave, we must rectify a singular error into which the author has fallen, by assigning a sentiment respecting the influence of the Tragic Muse to Mrs. H. More, which is well known to belong to Aristotle. The passage, which occurs in his Poetics, is as follows:

Ἔστιν οὖν τραγῳδία μίμησις πράξεως σπουδαίας, ἀλλὰ δι' ἐλέου καὶ φόβου περαίνουσα τὴν τοιούτων παθημάτων κάθαρσιν. Mo-y.

Art. 26. *Unanimity and Energy in the present Crisis:*—Delivered in the Dissenting Chapel at Lympson, Devon. By the Rev. Thomas Jervis. 8vo. 1s. 6d. Johnson.

Mr. Jervis pleads the unprecedented situation of his country as an excuse for the complexion of his discourse, but its contents require no kind of apology. Far from abandoning himself to loose, intemperate, and angry declamation, he preserves the character of the Christian in the midst of the tempest which agitates our political horizon. Not having been furnished with proper documents, he does not pretend to decide on the origin of the war, nor to determine whether it might or might not be avoided; nor does he endeavour to inflame our passions against the enemy, by fulminating on him every epithet of abuse and calumny. He does justice to the talents, intrepidity, and temperance of that extraordinary man with whom we have to contend, while he properly stigmatizes his pride, ambition, and dissimulation; his disregard to the claims of humanity and freedom; and his deep-rooted envy of the power and prosperity of Great Britain. By such a description of his character we are put on our guard, as by reflecting on the force at his disposal we are apprized of the arduous nature of the conflict: but Mr. Jervis assures us that a nation, like our own, energetic and united in asserting its independence against an invading foe, is taught by various facts in history not to despair. The preacher contends that common contributions to the aid of Government, and to the public safety, demand in return a common participation of political privileges; and in course that a total repeal of all penal laws on account of religion should take place. From reflections on the horrors and desolating calamities of war, Mr. J. looks forwards through the chearful medium of prophecy to a future period, when all bloody conflicts between nations will terminate, and iron be employed for no other purposes than to enrich and fertilize the world. How much has Christianity to accomplish before this bright period will arrive! Do

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CORRESPONDENCE.

In our account of "*Poems by Peter Bayley, Esq.*" Rev. for October last, we intimated a suspicion that the name thus given in the title page was only a *nom de guerre;* a conjecture which occurred to us solely from a resemblance which we thought we traced in the author's manner, to the compositions of a gentleman who had recently presented the world with some poems of a fictitious *Thomas Little,*

Little, Esq. It is now in our power, however, to inform our readers that we were deceived in this idea, and that the poems of Mr. Bayley are given to the public under the proper designation of their real author. We learn, also, that the remarkably erroneous rhyme, noticed in our first extract from this volume, was a *mis-print*, and that for *brave* we should read *sage*. We have pleasure in rendering justice, on both these points, to this ingenious writer.

Had Mr. Capel Lofft perused the ingenious Memoir of Mr. Tytler, of which we gave a concise account in our last number (p. 296), he would have found a solution of the difficulties mentioned in the letter with which he has favoured us. If Laura was born, lived, died, and was buried near Vaucluse, the tomb in the church of the Minories at Avignon could not have been that of Laura; and the inscription M. L. M. I., the Sonnet, and the Medallion, if intended for Laura, must have been forgeries. That forgeries were practised, to convey the notion that she lived and died at Avignon, is evident from the MS. passage in the Ambrosian Virgil; which must either be allowed to be spurious, or numberless passages in Petrarch's works must be condemned as interpolations: an alternative on which few critics would have any hesitation to decide. Mr. Tytler's Essay appears to us very satisfactory, and we recommend it to Mr. Lofft's perusal, confident that it will reward him for his trouble. Monks have not found it a very difficult task to impose on monarchs; and the visit of Francis I. to the tomb in the church at Avignon is no proof that it contained Laura's remains. Mo-y.

The *motives* of '*a Clonmel reader*' are intitled to our sincere acquiescence and cordial thanks: but we can scarcely allow that the fault which he imputes to us deserved the *fine* imposed on us by his letter. We shall, however, endeavour to profit by his correction, as much as circumstances will permit.

We are much obliged by the letter of "*a Constant Reader for 40 years*," as well as gratified by his signature; and we shall pay due respect to his information.

The inquiry on the subject of horology is not properly addressed to us: but we believe that no such work exists as will answer the description given by our correspondent.

In reply to several letters requesting early notice of various works, we can only say, as we have so frequently said before, that each must take its turn; which must be subject to contingencies.

On searching respecting the *Pedestrian Excursions*, we find that we have not yet seen the object of our fair correspondent's inquiry.

Mr. D. L. has been misinformed.

☞ The APPENDIX to this volume of the Review will be published with the Number for *January*.

Errors, p. 350, 370, 443.

APPENDIX

TO THE

FORTY-SECOND VOLUME

OF THE

MONTHLY REVIEW

ENLARGED.

FOREIGN LITERATURE.

ART. I. *Histoire des Suisses ou Helvetiens*, &c.; *i. e.* A History of the Swiss or Helvetians from the most remote Period to the present Time. By P. H. MALLET, Professor in the Universities at Upsal, Cassel, &c. 4 Vols. 8vo. Geneva. 1803.

How fondly has the mind been accustomed to direct its flights to Swisserland, and to contemplate in imagination its interesting inhabitants, the children of nature, brave, independent, and happy; dwelling among stupendous heights, fearful precipices, enchanting views, and amid scenery which exhibited matchless contrasts! Alas! that Swisserland which delighted the traveller, and whither cultivated fancy roved with so much pleasure, exists no longer! Modern Helvetia, the insulated province of France, occupies indeed the same space in the map which that happy country formerly filled, but it is a different object, and calls forth very different associations.—The worthy author of these volumes appears, from a passage in his preface, to have anticipated these feelings in his readers. His work, he informs us, was nearly finished while Swisserland yet enjoyed all its lustre and independence, under the laws of its antient confederacy: but it is now presented under other circumstances; and the recollections which it awakens, however painful they may be, must highly excite the reader's attention, and are calculated deeply to instruct him.

M. MALLET enumerates, among the qualifications with which he sat down to compose the work before us, a knowlege of the language of the country, a long residence in it, and close

intimacy with those of its inhabitants who were most conversant with its history, its laws, and its policy. His aim, in this performance, has been to note chiefly the circumstances that led to the formation of that illustrious confederacy, which gradually attained so wide an extent, which established itself by victories, and which strengthened itself by its wisdom, justice, and valour: virtues which ensured to it happiness and glory for nearly five centuries. The origin and progress of this once mighty league, therefore, with the events which have had an influence on its fate, and which tend to illustrate its constitutions, its laws, its character, its moral and political principles, form the subject of this History; and the author professes to omit all that is of a more confined nature, all that refers to local transactions, to particular cities, and to individual families. The plan is liberal and judicious, and the execution is in all respects worthy of it; since the narrative is elaborate and well digested, and appears with every advantage which a dispassionate estimate of things, a luminous arrangement, and finished composition, can impart to it.

This literary veteran, however, still adheres to the error which pervaded his *Histoire de Dannemarc*, and into which he was led by following Cluverius and Pelloutier; viz. that of regarding the Celts and Goths as originally the same people. This mistake was fully exposed by the very learned and able translator of the Introduction to the above-mentioned History: but from a regard to M. MALLET's candour and ingenuousness, we must require ourselves to believe that he has never seen this correction. The mistake does not materially affect any part of the present performance; which must add very considerably to the reputation which the author derived from his former valuable work.

Though the principal part of this production is devoted to the object before stated, a considerable portion of the first volume is employed in narrating the share of the inhabitants of antient Helvetia in those atchievements, which proved fatal to so many Roman armies in the wars waged by the Cimbri. The writer next describes their discomfiture by Cæsar, and then relates the principal events which befel them while they formed a province of Rome, the sufferings which they underwent in the contests for the empire that arose on the death of Nero, and the prosperity which they enjoyed under the Flavian family. He afterward traces their history while successively beneath the rule of the Alemanni and Burgundians, the kings of the Franks, the second kingdom of Burgundy, and the Emperors of Germany. If he dwells but shortly on the early part of the life of the famous Rodolph of Hapsbourg, he very satisfactorily

torily details the circumstances which determined the policy of the beneficent house of Zœringen; and, agreeably to his promise, he points out the elements whence arose the confederacy which is the theme of his work, however remotely and widely they lie scattered.

In the division of the provinces which Augustus made with the Senate, Gaul, including Helvetia, was one of those which he reserved for his own cognizance; and in forming this selection, he had particularly in view the military forces which its situation rendered necessary, and of which he would have the disposal. The civil government was administered by Lieutenants immediately dependent on the Emperor, who were the commanders in chief of the forces, and invested with the supreme judicial authority. The financial department was intrusted to officers denominated the procurators of Cæsar; who were generally freedmen, devoid of all shame, and guilty of boundless oppressions. The multiplied imposts charged on the Helvetians rendered them dear purchasers of the fine arts, the sciences, the civilization, and the improved police, which it was the boast of the Romans to have introduced among them. An inscription found in the ruins of the antient Vindonissa commemorates Manlius Cordus, who had been a receiver of the taxes, and gives him the surname of *Rapax*. The modern Helvetians have been visited by exactors in no degree inferior to Cordus: but we believe that they have been less ingenuous, and have not so honestly designated themselves as the Roman pillager did.—The author then ingeniously demonstrates that, as a state extends its territories, the burthens of the people proportionately increase; and he concludes with this important reflection, the application of which no one can be at a loss to guess; 'such then, for the greater part of a nation, is the inevitable result of those conquests which at first so much flatter its pride, which it hails with exultation, and which in reality prepare for it misery, slavery, and humiliation.'

In a later division of Gaul by Augustus, Helvetia formed a part of the great Lyonese Province, of which Lyons was the capital. When flattery had exhausted all human praise on the first Emperor of Rome, it raised him to divine honours; a temple was erected to him in the above-mentioned city; and a magnificent altar was consecrated to him, adorned with sixty columns, constructed at the expence of so many conquered nations, whose names were engraved on them, together with the victories of the present deity which had led to their subjugation. Three hundred augurs, and sixty soothsayers, exercised the functions of the worship of the Goddess of Rome, and of the God Augustus. A Gallic Prince was the first of these

new priests: an office which was in great request, and was sometimes purchased at a high price. Thus ended, in scenes of the most degrading servitude, the history of the liberty of Rome!

M. MALLET extols the felicity of the whole Roman world, in which Helvetia shared, under the beneficent reign of Adrian. This Emperor, he says, has not had the good fortune of having his services recorded by historians worthy of him. He well merited the glorious title of the *Restorer of the Gauls*, which was bestowed on him by the people. He was learned, and he was a philosopher: but his philosophy was that which loves to preserve, and not to destroy and change every thing. Although brave, he avoided war, because he regarded it as an obstacle to the good which he desired to effect, and because it was the source of all the ills which afflict humanity; and, far from aspiring to new conquests, he restored a part of those which his predecessor Trajan had made in the East.

In the succeeding passage, we meet with an account of the origin of a people who, in recent days, have seemed desirous to emulate the qualities which distinguished them at the period when history first takes them up; without excepting even the barbarism and harsh usages which then belonged to them, but which were rather features of the time than those of the people:

'About the middle of the third century, under the reign of Gordian, we first hear of the Franks: but from that period they act an important part in the history of the calamities of Europe, and in that of the decline of the empire. Their language, their laws, their religion, their manners, and their usages, prove them to have been of German origin. Great obscurity prevails in regard to their first abodes, because, like all uncivilized nations, they led a wandering life: but they are supposed formerly to have dwelt between the Elbe and the Weser, and to have advanced towards the banks of the lower Rhine previously to the time when the barbarians began to inundate Gaul. They consisted of various tribes, whose names disappeared to make room for that of Franks, the origin of which is unknown. Under Valentinian, they established themselves in Belgium, and on the left bank of the Rhine. History mentions the names of several of their kings, or chiefs, who preceded Clovis. The latter laid the foundation of a very extensive kingdom.'

The author gives what he calls a *coup d'œil* of this country, a short time before the elevation of the House of Hapsbourg to the empire. He observes that the Dukes of Zœringen, who had been long regarded as the most powerful lords in the country, were become extinct. Next to them ranked the Counts of Burgundy, of Savoy, of Hapsbourg, and of Kybourg; and scarcely inferior to these, were those of Rapperschwyl,

chwyl, Tokenbourg, and Neuchatel: from the latter of which the House of Orange derives its origin. Among the Prelates, the most distinguished were the Bishops of Lausanne, Sion, Bâle, Coire, and the Abbot of St. Gall. Among the cities, Zuric held the first place, for it was the staple of the commerce between France and Italy. Constance was a Bishop's see, the Emperor often resided there; an imperial governor held his tribunal there, in which justice was administered according to the written law of the Germans; his decrees were confirmed by the people; and the subjects enjoyed the privilege of being tried by their Peers. Bâle was the largest city in Helvetia. Soleure and Schaffhausen were free and flourishing. Berne was distinguished by the possession of the most liberal franchises. The Counts of Savoy were rising to a great power in the south of Helvetia. The inhabitants of Uri, Schwitz, Underwalden, and the upper Hasli, formed communities which enjoyed great privileges, and were governed by magistrates of their own. The extinction of the House of Suabia, and the consequent feeble state into which the empire fell, which continued till the accession of Rodolph, greatly favoured the attempts at independence made by the chiefs and free communities of Helvetia, as well as those of other powers.

M. MALLET's account of the Emperor Rodolph, and of the origin and formation of the confederacy, is very correct, perspicuous, and satisfactory: but it is less full and masterly than that which was given by Mr. Planta in his history of the same country *.

The author bestows great praise on the early part of the reign of Rodolph: but he informs us that, as he grew old, his children, taking advantage of his weakness, instigated him to commit faults which tarnished the glory of his better days. His son Albert induced him to constrain the Abbots, the great Lords, and the cities, to alienate in his favour wholly, or in part, their domains, rights, and revenues, at a price fixed by himself; and he persecuted the Abbot of St. Gall, whose friendship he had formerly esteemed himself highly fortunate to engage, put him under the ban of the empire, and was his implacable enemy till his death. This conduct had excited great discontent in Helvetia, but the behaviour of his successors was such that it changed those murmurs into regrets. The little cantons, being well acquainted with the character of Albert, anticipated the attacks which would be made on their rights and privileges, and prepared to meet the outrage. It seems that a sort of confederacy existed between the little states of Uri, Schwitz, and Un-

* See M. Rev. Vol. xxxii. N. S. p. 161. 405.

derwalden, previously even to this time; and on the occasion of Rodolph's death it was solemnly renewed: while the reputation of Albert for ambition, hauteur, and severity, occasioned like precautions to be taken in other places to oppose his designs. Having on this account also lost the imperial diadem, he was engaged in a war with the empire: but being successful over the newly elected Emperor Adolphus, his rival, whom he slew in battle with his own hand, he thus regained the splendid prize of which his pride and overbearing conduct had deprived him.

On being invested with the imperial dignity, Albert endeavoured, by specious offers and fair promises, to induce the little cantons to hold under him in right of his hereditary dominions, and not as head of the empire. They sent their answer in these words by Werner of Attinghausen, Landamman of Uri; "We acknowlege, and we shall never forget, that the Emperor Rodolph always shewed himself towards us as a just chief, and true to his engagements. His children may always count on our gratitude: but we are resolved to continue to be what our ancestors were. The Emperor knows our rights, let him confirm them as his father did."—This communication was ill received by Albert; and Gessler and Berenger, natives of the country, but neither loved nor esteemed, were appointed by him, the one the governor, the other imperial judge of the cantons. The oppressions of which these men were guilty, and the insults offered to individuals of respectability, occasioned the conferences between Walter Furst of Allinghausen, a rich proprietor of Uri, Werner Stauffach of Schwitz, and Arnold Melchtal of Underwalden, which led to the memorable association in the field of Grutli. The engagements there formed shew the simplicity, integrity, and general worth of these heroic persons, and prove that there have lived men not less capable of atchieving liberty than worthy of enjoying it. Among other stipulations, they bound themselves, as far as it was possible, to avoid shedding the blood of the governors, or that of their families and their officers; it being their sole desire, as they declared, to ensure to themselves, and to transmit to their posterity, the liberty which they had inherited from their fathers. The insurrection was fixed for the first day of the new year (1308), and its object was attained without difficulty. Berenger, having escaped, was taken by the conspirators, who led him and his train to the frontiers, and then dismissed them, doing them no personal injury whatever. The plan of the insurgents, however, had nearly failed by the rashness of William Tell, one of the conspirators; who, having been put in irons by Gessler, slew him. The present

writer maintains the authenticity of the story of Tell's escape from the boat, on the spot where the chapel which bears his name very lately stood. This little edifice, he says, was consecrated in 1358, at which time there were one hundred and fourteen persons alive, who had seen Tell; a fact which must dissipate all the doubts raised with respect to this illustrious man. We should have been glad if he had informed us of the authorities on which he rests this statement. Indeed, the want of references to documents throughout this work is a great defect, for which we are at a loss to account: such attestations afford information as well as satisfaction to studious and inquisitive readers, and ought never to be omitted in performances so valuable as the present; the general correctness of which, however, we would by no means be understood to impeach.

Having described the chapel of William Tell, the author adds; 'this was the state of that venerable pile in 1766, but we are ignorant what has been taken from or added to these monuments of the founder of Helvetic liberty, by the foreign and armed missionaries of *another liberty;* who, after having lavished incense on his memory, came to subvert his labours, to persecute his descendants, and to plunge his country in misery and sorrow.'

The tragic end of Albert, who was slain by his nephew Prince John and other malcontents, averted for a time the storm which threatened the confederates; and the accession of Henry VII. to the empire, who was jealous of the House of Austria, prolonged the calm. This emperor confirmed to them the important privilege of holding immediately of the empire, (*an.* 1309.) and that of not being cited before foreign tribunals; and thus were they in fact absolved from all responsibility on account of their insurrection against the governors of the Duke of Austria. Henry even went farther, and gave his express approbation to their conduct towards their late tyrannical magistrates.—The quiet enjoyed by the three cantons, however, was now approaching to a close. Leopold of Austria no longer suppressed his indignant feelings; his threats were loud; his preparations were formidable; all his vassals in Alsace, Suabia, Argovia, and in other parts of Helvetia, as far as the Oberland and the very frontiers of Underwalden, were commanded to join his standard; and they were not backward in obeying the summons. Zuric, and the Abbey of Einsedlen, contributed to swell the bands which were to overwhelm the brave confederates. Mediators interposed their friendly offices, and Leopold deigned to make proposals of accommodation to those whom he represented as his revolted subjects: but in these offers they discerned only slavery ill disguised, and therefore they rejected them; at

the same time declaring that they were disposed to live in peace with the Duke, notwithstanding the numerous subjects of complaint which they had against him, but that they would neglect no means of defending themselves if he attacked them, full of confidence in the protection which heaven would yield to the justice of their cause. Not doubting that their destruction was determined, they made every preparation in their power, and resolved to sell their lives at a dear rate. The confederate forces were thirteen hundred, while those of the invaders were reckoned at twenty thousand. Leopold marched on the side of Zug; and Rodolph Reding of Schwitz, an experienced soldier, weakened by age, but whose wisdom, patriotism, and skill merited the confidence of his countrymen, advised them to seize the heights of Morgarten, which commanded the defile by which the enemy was to enter their territories. The battle, so glorious to the valiant few, which takes its name from that memorable spot, was then fought (Nov. 15, 1315.), the issue and the consequences of which are well known.

The confederates, on the occasion of their late victories, now renewed their alliance, and drew its ties closer together; and M. MALLET very properly directs the attention of his reader to the moderation, the wisdom, and the regard to justice, which regulated these engagements.

Elevated by their victories, by their valour, firmness, and prudence, the confederates were favourably regarded by the Emperor Louis of Bavaria. They waged war against the robbers of the Leventine valley, and made acquisitions of territory; and, which was still more important, the city and district of Lucerne, labouring under the same grievances with the three cantons, adopted their example, threw off the Austrian yoke, and joined the confederacy. Even at this time, the hatred and jealousy between the chieftains and the free communities of Helvetia, which afterward led to such serious consequences, were rising to a great height. It is an important remark, borrowed by the author from another historian, that the Duke of Austria and the Emperor were the means of greatly weakening the aristocratic, and of strengthening the popular interest in Helvetia. He alludes to the measures taken in consequence of the assassination of Albert: when the regicides and their abettors were put under the ban of the empire, while Leopold spared no pains to have the decree carried into execution. He razed the castles, and executed the owners, in every case in which there appeared the shadow of a suspicion that the party had acted in or approved of the murder of his father. This severity, we are told, effected a greater destruction of the nobles than all the wars which followed.

The

The accounts here given of the assassination of Albert and its consequences, of the preparations of Leopold, and of the battle of Morgarten, are very faithful and ample; yet they do not appear to advantage, if contrasted with those which the English reader has it in his power to peruse in the work of Mr. Planta.

Berne had incurred the high displeasure of the Emperor Louis of Bavaria, by refusing to recognize him while the papal sentence of excommunication was in force against him; and nothing less than the annihilation of this proud city could appease his indignation. He was the author of the war which the confederacy of Nobles waged against them, and which was terminated by the glorious battle of Laupen, July 21, 1339. This confederacy was headed by the Count of Nydau, who had acquired high military renown in Palestine; and the Counts of Neuchatel, of Vallengin, of Arberg, of Gruyeres, and of Eberhard, with the powerful Count of Kybourg, all devoted to the Emperor, and entertaining irreconcileable hatred towards Berne, had entered into it: while by the side of the vassals of these haughty chieftains, appeared the burghers of Fribourg, the late allies of Berne. The Bernese neither despised the danger, nor gave themselves up to fear. They professed themselves ready to listen to equitable propositions of peace, but intimated that they should not relax in their preparations to repel force by force; and they called on their allies, several of whom sent them succours. M. MALLET says that their request was powerfully seconded in the little cantons by William Tell and Werner Stauffach, who, though very aged, were still alive: but we think that a note, stating the evidence on which this part of the text stood, would not have been thrown away. The state of Berne appointed Rodolph of Erlach its commander in chief. The day of Laupen, it is well known, was highly fatal to the power of the Nobles: since the Count of Nydau, their leader, the Count of Valengin, the young Count of Savoy, three Counts of the House of Gruyeres, and a number of great lords, fell in the field of battle. The whole country was covered with arms, with horses, with the dead, and with the wounded; and the loss of the Nobles was estimated at fifteen hundred horse, and three thousand foot, while that of Berne was very inconsiderable. The action lasted only two hours.

Berne, valiant in battle, shewed itself not less moderate in the terms of peace which it offered. The House of Neuchatel, which had joined the league of nobles against Berne, (nearly related to its head, the Count of Nydau, who fell at Laupen,) elected the Commander of the Bernese to be the

guardian of the infants of the deceased Count. The brave Erlach accepted the trust, and faithfully discharged it; and thus did these children find a protector in the conqueror of their father, while the state of Berne approved and ratified the arrangement. This singular trait does high honour to all the parties.

The author presents us with an interesting account of the constitution of Zuric; which, he says, was conformable to the model of that of the other cities of the empire, as it had been granted and settled by the Emperor Henry the fowler: whose merit on this account, he thinks, has not been sufficiently felt and acknowleged by posterity. We were greatly struck by his neat description of the progress of a demagogue from the exercise of the arts of base flattery, by which the multitude are captivated, to that of acts of tyranny, by which they are oppressed; as it occurs in the author's masterly account of Rodolph Brun of Zuric. The crimes of this hateful intriguer had, however, one good effect; they occasioned the accession of this powerful city to the Helvetic confederacy.

The policy by which Berne aggrandized itself is impartially and ably stated in the following passage.—It persevered in augmenting its ascendancy over the Nobles in its vicinity, by means opposite in appearance, but really directed to one end. It admitted many to its burghership, and it then protected them against those of their vassals who attempted to shake off their yoke. On the other hand, it lent support to the vassals when the Lord was its enemy. Thus it gave effectual aid to Rinkenberg, its coburgher, who was a governor (under the Emperor) of a great part of the Oberland. The inhabitants of this Alpine country bordering on Berne had leagued with those of Underwalden, in order to recover their liberty. These peasants, sprung from the same stock, and equally valiant with the other confederates, thought themselves equally worthy of freedom; and their efforts to realize it, with the opposition of Berne, which supported the Lord, its coburgher, Rinkenberg, had nearly caused a division among the cantons, as Underwalden wished to emancipate its neighbours of the Oberland. The power of Berne triumphed, the vassals were obliged to submit, and Underwalden was forced to promise never to aid the serfs of Berne, nor those of its coburghers. Berne gained its cause, observes the author; while a brave people, desirous to be free, were unsuccessful.

Speaking of the emperors who reigned at this time, the writer says that the greater part of them ruined their houses in order to acquire the empire, and then ruined the empire in order to raise their houses. They alienated without any scruple its rights and its possessions. This is the case, he adds, of all elective

elective states; and we are not to believe that our ancestors were so ill advised, as is supposed at this day, when they chose to confer hereditary power on their chiefs, notwithstanding the many inconveniences which attend it.

M. MALLET renders justice to the valour and splendid appearance of our countrymen, who, at this period (1375.), under Enguerrand de Coucy, made incursions into Swisserland, and obtained from the Duke of Austria the counties of Kybourg and Thierstein; and he then makes these reflections: 'Thus this illustrious Noble, so powerful and rich, who had commenced the war with an army perhaps not less brave, and at least not less numerous, than that with which Alexander conquered Asia, was reduced to accept as the price of so many efforts, and of so much blood, two lordships, situated far from his country, by no means fertile, and of a very limited extent and revenue.'

Glaris and Zug had already joined the confederacy; and Berne, shortly after the memorable battle of Laupen, threw its weight into the same scale, and thus extended the union to eight cantons: which are often distinguished as the eight antient cantons, because they remained at this number for a hundred and twenty-five years. It is a mistake, says the author, if we regard the Helvetic Confederacy at this time as a system combined with reflection, with the design of pursuing a certain object, and of acquiring in common an enlargement of territory and power. The principal, and almost the sole aim of its founders was the security of their antient rights against the enterprizes of Princes and Nobles. When we speak of independence as the object at which they aimed, it must, if applied to their efforts at this period, be taken in a restricted sense; since the formation of an independent Republican state was not yet in their contemplation. Their league was not even a general, uniform, equal confederacy: it was kept together by conferences, which gave rise to the Helvetic Diets of after days, but which at this date had nothing fixed either as to time or place. There existed no regular organized congress, as foreigners have supposed; who fancied that they saw in Swisserland, in the fourteenth century, another Achæan league, or a federative republic: an association in substance and in name unknown to the Swiss of that æra. It is necessary to be apprized of this fact, in order properly to comprehend the complicated transactions of this country.

In the course of the long contest between the House of Austria and the confederates, we meet with this curious incident. The cause of quarrel having been referred to the Emperor Charles IV. he pronounced a judgment which the Cantons refused to obey. Indignant at this act of disobedience,

ence, he resolved to carry his decree into execution by force of arms. He called out his vassals, marched against Zuric, and invested it with a large army. The chiefs and their followers held their enemy in the utmost contempt, and they regarded themselves as assembled rather to share spoils than to engage in war. How, said they, can four thousand burghers and peasants resist four thousand men in armour, and forty thousand infantry and cavalry? The besieged, however, were not disheartened, but bravely defended themselves, and made many sorties. As little discipline was observed in the imperial camp, the besieged had frequent communications with the besiegers, and they persuaded a part of them that the war in which they had engaged was directly against their own interest; that, if they destroyed Zuric, they would annihilate the right which the states and cities of the empire claimed, of entering into alliances one with another; and that it was notorious that it was against this right exercised by the confederates, that the Emperor and the Princes waged war. They pointed out the alarming progress made by the House of Austria, for whose sake the war was undertaken, from the time in which Rodolph had been a pensioner of their fathers, to the present, when his grandson was seeking the destruction of that city to which his family owed the commencement of its elevation. Why should the states of the empire aid the Duke of Austria to destroy the remains of liberty, and to forge those chains which, in their turn, they would be forced to wear? These insinuations had their effect. Zuric, having thus shaken the fidelity of the soldiers, induced them to take its part, by hoisting on a high tower a standard, exhibiting the black eagle in a field of gold; which was intended to declare to all the world that it was a free and imperial city. At the sight of this flag, an universal commotion took place in the besieging camp. The heated multitude approached the tent of the Emperor, and demanded with loud cries that he should give peace to Zuric, and to its allies. Charles appeared intimidated, adopted the request of his troops, and raised the siege; saying that, as it was the wish of the majority of the army that the cantons should be allowed to enter into alliances among themselves, it was no longer fit to continue a war, of which the sole object was to prevent these compacts.

The Duke of Austria soon felt himself under the necessity of following the example of the Emperor, by refraining from hostilities, and entering into terms with the Cantons.

Though truce succeeded truce, the Cantons were not to be allowed to enjoy their rights in peace, till another war should give a new strength to their title. The House of Austria regarded

garded the confederacy as a barrier which it must break down, in order to subjugate its members one after another. Various causes contributed to rekindle the flames which had been smothered; both sides had been aggressors; and the great houses and the free communities were destined again to refer their cause to the decision of the sword. The question to be determined was not respecting territory and revenue, but whether the nobles should resume their antient authority over the people, or the latter should remain for ever emancipated? Leopold, the Duke of Austria, had very lately triumphed over a confederacy in the empire, far more extensive, but not so well compacted as the Helvetic. Inflamed with rage, and intoxicated with success, he talked only of crushing the insolent confederacy of the Swiss, and of making them expiate their rebellion by severity of punishment. In the course of a few weeks, one hundred and seven Princes, and Lords of Helvetia and Suabia, sent to the Cantons defiances and declarations of war, full of outrage and menace. These messages were successively delivered at the place at which they held their deliberations, in hopes that their threats, renewed almost at every instant, would terrify them: the most rigorous treatment was holden out to them; and their union was termed a horde of villains:—but to insult an enemy is never to conquer him: and it often renders him invincible. Remarks which have already occurred may have prepared the reader to hear that Berne declined a share in this glorious contest, and that the other seven cantons were left alone to face their powerful foe.

The narrative of the battle (June 9, 1386.) which decided the fate of the confederacy, and placed its independence out of all danger in future, flows in the usual perspicuous and interesting manner of the author. Leopold formed his army under the walls of Sempach; it consisted of four thousand picked troops, of princes, lords, and distinguished knights, cased from head to foot in brilliant armour: while the confederates occupied a height defended in part by a wood, and did not exceed fourteen hundred in number. The latter were drawn up in close order, in an angular form; and they made extraordinary efforts to penetrate the Austrian column, but they were vain, and many brave men fell; till Arnold de Winkelried, a knight of the canton of Underwalden, a man of large size and great intrepidity, sprang from the ranks, crying to his companions, "Take care of my wife and children; I go to open a passage for you." He immediately rushed on the enemy, seized as many of the iron heads of the lances as his nervous arms could hold, and, placing them on his broad chest, he drew them

them along with him in falling. By this heroic sacrifice of himself, he ensured the victory to his countrymen; who, passing in a crowd over his body, cast themselves into the opening which he had made, advanced with an irresistible force, and commenced a horrible carnage. Leopold, advised to betake himself to flight, disdained to outlive his defeat; saying, "Can I think of surviving those who have sacrificed their lives for me?" Observing some of his most faithful attendants stretched dead at his feet, he cried out, "Since so many brave men have died, I will die like them with honour." He then threw himself on the ranks of the victors, and was slain by a man of Uri, who did not know him. Of the Austrians two thousand men perished on this memorable day, in which were included six hundred and sixteen nobles, and three hundred and fifty knights, counts, and princes. The confederates lost as many hundreds, among whom was the immortal Winkelried, the Landamman of Uri, the Landamman of Underwalden, and Peterman of Gundoldigen, their General and Avoyer of Lucerne, who expired of his wounds just as victory had declared in favour of his countrymen; and who, with his dying words, advised his fellow-citizens never to continue an Avoyer in office for more than one year.

Introductory to the accounts of the war which the people of Appenzell waged with the Abbot of St. Gall, the author thus describes the face of the country, and the character of its inhabitants:

'The air is keen and pure. In many places, fine pastures, verdant meads, and up-lands cultivated with care, charm the eye of the traveller, who is astonished at the multitude of houses and cottages which are so thickly scattered, and which an extremely crowded population inhabits. The men are healthy, strong, and well made; for the most part honest and open, sensible and lively. Here we see that equality reign, of which so much of late has been said. The people display the pride and coarseness which usually accompany it, but they possess also the advantages and virtues which equality confers on a race who are simple in their manners, strangers to violent passions, and who know neither luxury nor poverty.'

The wonderful and scarcely credible exploits of this brave people are next related. They alone, of all the Swiss tribes, seemed disposed to avail themselves of the revolutionary spirit which the example of the confederates had diffused, in order to extend their power and influence; and had the cantons cooperated with them, or acted on similar maxims, it is not to be conjectured to what extent federative governments might have prevailed.

The author very minutely states the proceedings of the confederacy, on being requested by the Emperor to make war on

the Duke of Austria; with whom, shortly after the battle of Sempach, they had entered into a truce for fifty years; and his reflections on the difficulties which the several cantons made, before they would consent to violate their engagements, are very just and important. The commands of the Emperor, the dispensation granted to them by the council, and the offer of retaining the conquests which they should gain from their antient enemy, overpowered the consciences of the majority of the members of the confederacy. Uri alone resisted the temptation, and refused to share in the rewards which were the fruits of violated faith. In this war against the Duke of Austria, very important acquisitions were made by the powerful members of the confederacy, which gave strength to the whole league, and prepared the way for the great figure which it subsequently displayed in the contests of states and empires.

From the contrasts which M. MALLET so frequently points out between the conduct of the confederates and that of the revolutionists of our days, there can be no doubt that it was one of his objects in this work to read lessons to a neighbouring nation. Certainly, instruction better intitled to respect, as being founded on example and experience, was never pressed on the attention of a people, nor on a people who ever wanted it more: but we are not sanguine enough to hope that, apt as the advice is on the one hand, and requisite as it is on the other, it will receive much notice, and produce much effect.

We have now followed the author through the various revolutions which this singular country has undergone, and have borne him company in his accounts of the confederacy from its cradle, through the periods of its greatest glory, and of nearly its greatest power. Our limits will not allow us to attend him any farther at present; but, in a future article, we shall continue the pleasant task, though probably not at so great a length, because the objects which will present themselves do not boast equal interest with those which we have now contemplated.

[*To be continued.*] **Jo.**

ART. II. *Traité Elémentaire de Mineralogie*, &c. *i. e.* An Elementary Treatise on Mineralogy, according to the Principles of Professor *Werner*. By A. J. M. BROCHANT. 2 vols. 8vo. and 4to Atlas. Paris. Imported by De Boffe, London.

WE are sorry that circumstances have intervened to delay our account of this work; which, we doubt not, is already known to the generality of English mineralogists, and the

the merit of which we some time since incidentally mentioned, in an article relative to this branch of science. It is now our intention to give a concise view of its contents, for the information of those who have not yet seen it.

The author observes in his preface, that he has been chiefly induced to undertake this publication, by the desire of making his countrymen more fully acquainted with the mineralogical system of *Werner*, the value of which is universally acknowleged throughout Europe. He then points out the various mineralogical works from which *Werner*'s principles have been extracted, for the compilation of the book before us, and afterward takes a general view of this science conformably to these principles.

Formerly, mineralogy comprehended every thing which either directly or indirectly related to mineral substances, so that it included the art of working mines, metallurgy, and other branches of information: but at present it is very properly limited to the mere knowlege of minerals. On the plan of *Werner*, mineralogy may be divided into five distinct parts; namely, 1. Oryctognosy, 2. Chemical Mineralogy, 3. Geognosy, more frequently called Geology, 4. Geographical Mineralogy, and 5. Oeconomical Mineralogy. Oryctognosy is, however, that which more particularly receives the appellation of Mineralogy, the object of it being to describe Minerals, to give them fixed denominations, and to arrange them in a systematical order. The present work, therefore, is principally intended to give a full account of Oryctognosy, according to the Wernerian principles.

Oryctognosy is divided into two parts, viz. 1st. That which relates to the description of simple mineral bodies. 2dly. That which concerns those of a mixed nature, or which are evidently not homogeneous. In the description of Mineral Substances, M. *Werner* employs four kinds of characters; viz. External, Chemical, Physical, and Empirical: but he gives the preference to the external characters, because he conceives them to be the most generally useful, and the most immediately applicable to the purposes of Mineralogical Science; the other characters, however, especially the chemical, are frequently employed as auxiliaries. The general or universal external characters are seven in number, 1. Colour, 2. Cohesion, 3. Unctuosity, 4. Cold, 5. Weight, 6. Odour, and 7. Flavour; all of which, having a great number of modifications, are to be employed in the description of Minerals; and, at the same time, recourse must also be had to the *particular* external characters, which,

which, exclusive of their varieties, amount to sixteen species: as follow: 1. external form, 2. external surface, 3. external lustre, 4. internal lustre, 5. fracture, 6. form of the fragments, 7. the separated pieces, 8. transparency, 9. the scratch, 10. the trace, 11. hardness, 12. ductility, 13, tenacity, 14. flexibility, 15. adhesion to the tongue, 16. sound. The modifications of these characters are afterward stated in their proper order.

The general classification of minerals comes next under consideration; the whole being divided into classes, genera, and species. The first class, or that of earths and stones, consists of eight genera. 1. Diamond, 2. Zircon, 3. Silica, 4. Alumina, 5. Magnesia, 6. Lime, 7. Barytes, and 8. Strontia. The second class, comprehending the saline bodies, has four genera, viz. 1. Sulphates, 2. Nitrates, 3. Muriates, and 4. Carbonates. The third class, or the Combustibles, includes three genera. 1. Sulphur, 2. Bitumen, and 3. Graphite. The fourth, or last class, being that of the metals, has nineteen genera, viz. 1. Platina, 2. Gold, 3. Mercury, 4. Silver, 5. Copper, 6. Iron, 7. Lead, 8. Tin, 9. Bismuth, 10. Zinc, 11. Antimony, 12. Cobalt, 13. Nickel, 14. Manganese, 15. Molybdæna, 16. Arsenic, 17. Tungstein, 18. Uranium, and 19. Titanium.

The second part of the systematical arrangement corresponds with the like or second part of Oryctognosy, which relates to the mixed mineral bodies or rocks; and here the characters of their composition, contexture, and formation, are considered. The rocks are divided into five classes, viz. 1. Primitive, 2. Transitionary, 3. Stratiform, 4. Alluvial, and 5. Volcanic; and these classes are again divided into species, subspecies, and varieties: but the first volume conducts us only to the end of the class of earths and stones, terminating at the genus Strontia.

To give our readers some idea of the mode of description employed by M. BROCHANT, after the manner of Professor *Werner*, we have translated the following as an example:

'QUARTZ.

'*Sub-Species.*

'*Bergkristall.—Le Cristal de Roche.*

'*Silex Quarzum Crystallus.*

id. Emm. T. 1, p. 217.—Wid, p. 296.—W. Cronst: p. 111.—Lenz, T. 1, p. 190.—M. L. p. 85.—W. P. p. 235. Quarzum pellucidum crystallisatum, Wall. p. 226. Cristal de Roche, R, d. L. T. 2, p. 70.—id. D. B. T. 1, p. 13. Mountain Crystal. Kirw. p. 241.—Quartz, Lam. T. 2, p. 119. Quarzo, Nap. p. 170.—Quartz-hyalin limpide, etc. Haüy. T. .

External Characters.

The colours of rock crystal are, grayish white, yellowish white, pearl gray, ochraceous yellow, vinous yellow, honey yellow, yellowish brown, clove brown, blackish brown, and (although seldom) pale rosy red.

Sometimes internally it exhibits irridescent colours. It is seldom found in a mass, sometimes in the form of pebbles, but almost always crystallized. The forms of it are—*a.* a prism, with six faces, having one of its bases, or both, furnished with a summit rather sharp, with six faces, corresponding to the lateral faces of the prism. —*b.* a double pyramid, with six faces (the contracted form of the foregoing figure); this is sometimes perfect, sometimes truncated on the borders of the common base; and sometimes three alternating faces in each pyramid are larger than the others, which give to the crystal the appearance of a cube.—*c.* a simple pyramid, very sharp, with six faces, having its apex, and often also its base, terminated by a point of six faces.—There are crystals of all sizes, from very large to extremely small.—The external surface is rough in the rounded pieces or pebbles. The crystals, on the contrary, have the lateral faces of the prism (and of the simple pyramid *c.*) transversely striated; the acute extremities and the double pyramids are smooth; sometimes the faces are covered with a rough coat, which is translucid. The external, but especially the internal, surface is of a bright lustre, like that of glass.—The fracture is perfectly conchoidal, but sometimes lamellated. The fragments are indeterminate, with very sharp edges.—It is diaphanous, or semi-diaphanous: It is hard,—brittle,—easily broken,—and moderately heavy.—The specific gravity is 2,650.

Chemical Characters.

It is totally infusible by the blow-pipe.

Component Parts.

Silica,	-	93
Alumina,	-	6
Lime,	-	1
		100

according to Bergman's Analysis.

Physical Characters.

Two pieces of Rock Crystal rubbed together are phosphorescent in the dark, and afford a peculiar odour, which is rather empyreumatic.

Use.

Rock Crystal, on account of its beautiful transparency and lustre, is employed in jewellery, but it is of small value in comparison with the precious stones.

Situation and Localities.

Rock Crystals are found in groups, which coat the cavities in veins of the primitive rocks, especially granite.—The mountains of Swisserland, Bohemia, Saxony, Hungary, the Pyrenean mountains, and the Alps, contain these crystals: but the most beautiful are brought from Madagascar.

Remarks.

' *Remarks.*

' Many substances are found intermixed with Rock Crystals; such as, Schorl, Amianthus, Strahlstein, Mica, Specular Iron, Nadelstein, &c. &c.—Cavities in these crystals are also observed, which contain a drop of water with air.'

so far Haich.

We now come to vol. II. which has appeared some time subsequently to vol. I. The interruption of a complex work is necessarily attended with inequalities of execution: but, in the present instance, a want of strict uniformity of manner is abundantly compensated by the acquisition of new facts and important information. The appearance of *Haüy*'s excellent treatise, and the obliging communications of *Dubuisson*, not to mention the advantage of procuring the most accurate details from Germany, have enabled M. BROCHANT to render his second volume more complete than it otherwise could have been.

Pursuant to his plan, he ranks the SALTS, as they are found to exist in nature, in the second class of simple minerals. The genera which compose this class are the *sulphates*, *nitrates*, *muriates*, and *carbonates*.

Tinkal, or *borax*, is added in the form of an Appendix, as a substance of which the history is still doubtful. The latest authorities, however, sufficiently prove that it exists in a natural state.

The third class, as was promised in the first volume, includes the COMBUSTIBLES, under the three general designations of *Sulphur*, *Bitumen*, and *Graphite*. The latter comprizes *plumbago* and *native mineral carbon*. The definitions of the crystals of sulphur are set down with a degree of accuracy and precison, which we do not recollect to have noticed in any work conducted on the Wernerian plan.

The fourth class contains the METALS, which are discussed in the following order, *Platina*, *Gold*, *Mercury*, *Silver*, *Copper*, *Iron*, *Lead*, *Tin*, *Bismuth*, *Zinc*, *Antimony*, *Cobalt*, *Nickel*, *Manganese*, *Molybdæna*, *Arsenic*, *Scheelin*, (*Tungstein*,) *Uranium*, *Menakanite*, and *Sylvanium*, more commonly known by the name of *Tellurium*.

As *Werner* has been accused of needlessly multiplying the specific distinctions in this department, the present writer judiciously remarks that practical miners recognize still more numerous varieties; and that a long residence in the heart of a mining country would naturally suggest the useful, though apparently minute, subdivisions which pervade this voluminous class. On the other hand, he has omitted many of the physical and chemical properties of the respective metals, because he conceives that a mineralogical treatise more properly

relates to metalliferous substances, than to the metals which are extracted from them by the processes of art.

It may also be proper to observe that, in the above arrangement, no mention is made of the *sulphates of potash* and *ammonia*, and the *nitrates and muriates of lime;* which, according to the distributions of several distinguished writers, appertain to the class of SALTS. Agreeably to the Wernerian method, however, they are excluded because they are not found native in a solid state, and because, in consequence of solution in water, they ought to be considered under the descriptions of the waters which they modify.

In the course of his explanations, M. BROCHANT frequently favours us with interesting and discriminating remarks: but these we cannot notice minutely, without exceeding our accustomed limits. One extract may suffice to confirm our favourable opinion, and at the same time convey some new information to the English student of mineralogy:

'*Blende* is one of the most ordinary mineral substances which occurs in metallic veins, though never in such abundance as to reward the trouble of working. Hence the zinc, which is usually employed in commerce, is mostly obtained from calamine: but it is also extracted by sublimation, in the process of reducing galena which is mixed with blende.

'M. *Hecht*, jun. has described in the *Journal des Mines* (No. 49. p. 13.) a variety of sulphurated zinc, or blende, which differs in every respect from the preceding secondary species; and which, in my opinion, deserves to be classed as a separate species, under the appellation of *compact blende*. I shall here shortly characterize it from *Hecht*'s Memoir, and from the specimens which he sent to Paris.

'*External Characters.*

'Its colour is an *iron black*, softening into *grey*. It contains some *yellowish parts*.—It is found in *stalactiform masses*, whose upper surface is *tuberculous*, and the lower *cellular*. The natural surfaces are *dull*.—The inside has *hardly any brilliancy*, and even approaches to *roughness*, though with partial tendencies to a *slight degree of smoothness*.—It is composed of *detached*, *testaceous*, and *concentric pieces*.—Its fracture, in the direction of the laminæ, is *conchoidal*; its cross fracture *fibrous*, the fibres *very slender*, and *disposed in diverging groupes*.—The fragments are *indeterminate*, with *sharp edges*.—It is *opake*.—Its scrapings are of a *reddish brown*. It is *half hard—eager—brittle—moderately heavy*. Specif. grav. 3,6344.

Chemical Characters.

'Compact blende, on a bit of charcoal, under the blow-pipe, decrepitates, becomes yellow, burns with a blue flame and white vapour, and diffuses a sulphureous odour of acid gas.—According to the analysis of M. *Hecht*, it yields 62 parts zinc, 21 sulphur, 5 lead, 3 iron, 2 alum, 1 arsenic, and 4 water. Loss 2.—When scratched in the

the dark, it does not, like yellow blende, phosphoresce; though, like it, it gives out the hepatic odour.

'At first sight, it strongly resembles some of the hæmatites; and, were it not for the colour, might even be mistaken for malachite. *M. H.* justly observes that it bears a striking affinity to a mineral found at Raibel, in Carinthia, and which is only known by a note of M. *Widenmann* (Wid. p. 906.) on the species calamine, to which he refers it.—This mineral is of a *liver brown*, shading into *reddish brown* and *smoaky gray*.—It is *reniform*, composed of *separate* and *concentric pieces*.—Its fracture is *fibrous*.—It is *dull*, or *faintly shining*—*opake*, &c.—When heated with nitric acid, it emits an hepatic odour.

'Compact blende has been found in the county of Geroldseck, in the Brisgaw, in a vein chiefly composed of galena and ponderous spar. That part of the vein in which it occurs is composed of argil, within which it forms a layer one or two inches thick.'

The *Treatise on Rocks*, which is subjoined to the account of simple mineral substances, is more condensed than the nature of the subject seemed to require. As a sketch, however, it is not unworthy of its author; and the reader will, no doubt, be pleased to learn that it was submitted to the revision of *Werner*, and of his celebrated pupil, *Dubuisson*. We have been particularly gratified by the distinct and comprehensive view which it exhibits of volcanic substances, according to a modified statement of the luminous method proposed by *Dolomieu*.

A copious index, and a separate table of the general and particular characters which belong to the several kinds of mineral substances, form very convenient additions to this truely useful and respectable production: in the course of which, indeed, we have remarked some omissions, not altogether insignificant, and particularly in the first volume: but they can scarcely be considered as censurable deficiencies, being rather the inevitable effects of the rapid progress of science, with which no systematic publication can keep pace.

see 467. from that mark

Muir.

ART. III. *L'Alphabet raisonné*, &c. *i. e.* The Alphabet illustrated, or an Explication of the Mechanism of our Alphabetic Characters; with Plates containing explanatory Figures. By the Abbé MOUSSAUD, Emeritus Professor of the College of Rochelle, and Member of the Academy of Belles-Lettres of the same city. 2 vols. 8vo. Paris, 1803. London, De Boffe. 14s. sewed.

LET not learned men be vain of their attainments; for if the author of this work may be credited, they are not yet acquainted with their A, B, C, but stand in great need of being initiated in the very principles of their alphabet. M. MOUSSAUD puts us back to our horn-book, and, with much

good nature and perseverance, endeavours to teach us the meaning of our letters: perhaps, however, he will complain that we are refractory scholars, and that we do not bow to him with that entire submission which is due from such ignorant pupils to so great a master. We are ready to confess, indeed, that this alphabetical lecture comes to us rather late in life; and that we cannot be so much amused now as we were in our childhood, by being told that "A was an archer, and shot at a frog;"—and how much more does the Professor of Rochelle college teach us? According to the old proverb, here is "Great cry and little wool;" much display, but little real discovery. Yet the Abbé congratulates himself on his good fortune, and records the following anecdote, in order that we and all his readers may rejoice with him:

'Among the alphabetic characters, (says he,) there is one which, though not, in truth, very frequently employed in our manuscripts, pleases me extremely by the elegance and agreeableness of its form. This character is the &; on which I have often employed my pen, in attempting to give to it all the perfection of which it is susceptible. At a propitious moment I made one so extremely well shaped, that its figure for some time fixed my attention. I considered it with a sort of complacency, when, all at once, the mysterious meaning of this figure revealing itself to me, I was presented with a view the most exact and, at the same time, the most happy, of the idea which it expresses. My surprize resembled that of a person who should on a sudden observe a thing to breathe which he considered as destitute of all principle of life. My first act was to cast my eyes over the other letters, and to examine whether these did not contain, in like manner, a hidden art. The easy explication of some of them, and particularly of the letter B, fully confirmed me in this opinion. The obvious consequence followed, and I was obliged to conclude that the alphabetic characters were not the effect of chance, as is commonly supposed, but the result of reflection, of which they artfully combine the traits. By this discovery, which appeared to me to be new, I was led to conceive the design of explaining the whole alphabet conformably to this principle; which, by the execution of my undertaking, I have fully confirmed. Such is the origin of the work which I now give to the public."

Surely *And-passy-and* (as the children call it, but we confess that *we* do not know how to *spell* it) never before produced such feats on any good gentleman's eyes and imagination. O fortunate M. Moussaud! thou hast taken the alphabet by the tail, and so shaken it that every joint has opened, and discovered to thee the secrets of its mechanism! As a Frenchman is never at a loss to fill up his time, this alphabetic torture has been the ex-professor's amusement in his expatriated state; vowels and consonants have been forced

forced to reveal their mysteries; and A, B, C, and their brethren, though long allowed to walk as it should seem in masquerade, are now stripped of every disguise, and exhibited stark-naked to the world. We do not say that this is either rudely or hastily performed: for the process advances quietly and regularly; and this *man of letters* commences with modestly asking a plain question:—'Those alphabetic characters which the Romans have transmitted to us, and which are now in common use throughout Europe; those figures and signs which speak to the eye, as the voice speaks to the ear; are they the simple production of chance or caprice, the mere result of convention or agreement among those who first invented and those who adopted them; or are they the work of genius and reflection, the fruit of observation and of labour?'—In short, as he otherwise states the problem; 'Are the forms of our characters arbitrary signs or images, or are they copied after some models, and drawn according to certain principles?'

Our readers are now apprized of the part which M. Moussaud is prepared to take in this inquiry, and will perhaps be desirous of obtaining a few specimens at least of his method of proceeding. We do not imagine that any one of them will expect to be converted: because, as the written signs of sounds are arbitrary, and have differed among different people; as the notes used in music, the figures used in arithmetic, and the characters of the short-hand writer, can of themselves convey no assignable ideas, but must be explained in order to be understood; it borders on the ludicrous to look for a mystery in this or that configuration of a letter, or to argue that there is a reason to be assigned for every curve or for every strait line, whether vertical or horizontal, to the right hand or to the left, which enters into the composition of every letter of our alphabet. Laughable, however, as such a notion may generally seem, it is seriously entertained by this writer; who contends that, so far from their being the effect of chance or of arbitrary will, there is not a stroke which does not reveal the wisdom that presided over their formation.

As the & is the peculiar object of M. Moussaud's admiration, we shall exhibit his explanation of its form.

'This character, shaped as we here see it, possesses throughout such an elegance and lightness as confer on it a grace of which very few of the other letters partake. It is to be lamented that it has been so rarely employed in our manuscripts, to which it would have been a great ornament. Though, in truth, it neither represents any organ nor any real sound, it is not the less expressive, nor the less energetic in its way. The destination of the &, the only character of its kind in the alphabet, is to represent to the view the operation of the mind, and

that part of the discourse which binds together two ideas. We call it a *conjunction*; that is to say, the *tie*, and it must be allowed perfectly to agree with its appellation. Its use and effect, as all know, are to unite two members of a sentence, nearly as a fillet or string ties two distinct objects together. Let us examine it according to this analysis. Does not its form resemble that of a true-lover's knot, interwoven with exquisite art and taste? Could there be any thing more happy or more expressive of its kind! Does not the & announce in itself its office, and its functions *?

'We have asserted that this character is *unique* in the alphabet. All the others, in fact, represent sounds only; this alone has a different designation, as we proceed to shew. It is an emblem, a true hieroglyphic, rather than an alphabetic character, properly so called. It would have figured with advantage among the Chinese characters; for, in China, where the people use marks, or characters, instead of letters, it is necessary to employ several, in order to express with clearness the simple idea of linking or uniting; and had they known our &, they would not have hesitated to have adopted it, and to have substituted it for their sign, which will not bear to be compared with it either for energy or agreeableness of form. Compared with the elegant *tournure* of the character &, it resembles a vile thistle by the side of a beautiful rose, or some wretched scribbling contrasted with letters most admirably executed. Under this relation, we may compare two beautiful thoughts united by an &, to two beautiful flowers tied together in a rich knot of ribbon. How, then, has it happened that this character, imagined with so much felicity, stands single in its destination among our letters?

'From this explication of the &, it follows that the two modes of writing &, *et*, the one simple, by one figure only, the other formed by the union of two characters, are very different, though they appear to be the same. The first represents an object susceptible of many names, the other expresses two sounds, which can form but one word. A person might choose, according to his fancy, between the two manners, which appear to me to be equally good. It is true, that the & has for a long time obtained my preference: but my predilection shall not prevent my being impartial. Being of that class of symbols which paint ideas, it appears as *a sort of stranger in the society of our letters*, which are employed for no other purpose than to express sounds. *It forms no more a whole with them.* We are justified in pronouncing it to be superfluous in the alphabet, since there is no case in which we are obliged to use it: but this may be asserted, moreover, of all those letters which we are in the habit of writing in different ways. We should therefore reduce them to one, and so much the rather, because the one and the other express the same. It is not thus with the &. This new sign is not the simple repetition of the same letter under a different aspect. It has an appropriate significa-

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'*For this character we are not indebted to the antients; it is entirely a modern invention: but its shape at first was very far from perfect. We are not acquainted with the period in which it first made its appearance.'

tion;

tion; it is a precious variety, *which, so far from surcharging the alphabet, contributes only to adorn and enrich it.* We may presume that, if it had obtained a more expeditious form, it would not have prevailed less in our MSS. than in our printed books. If its rival has been more used in the first, it was owing to its having been more favourable for the rapid movement of the hand. Thus each has its advantages and its *glory:* the one possesses velocity, which assures to it the empire of the pen; the other, elegance, which stamps a value on it in the eye of the printer.

'But the & has more than one solitary prerogative to incline us to pronounce in its favour. Being the natural sign of the *conjunction*, it follows that, in all languages, and among all people, it is equally proper to designate it, whatever be the name that it may happen to obtain. Those of our neighbours, the English and the Germans for instance, who have not admitted it into their alphabet, have by this omission deprived themselves of a character, perfect in its kind, which unites the double advantage of brevity and energy. Their words *and* and *und*, which express the conjunction between them, naturally constitute its name, as *et* does with us. They can thus, like ourselves, employ indifferently at one time the name instead of the sign, and at another the sign instead of the name, as they may prefer to represent the idea or the sound of the voice.

'This explanation of the form of the &, founded in the nature of things, though it may not convince prejudiced minds, ought at least to make some impression on them.'

No doubt, the author has flattered himself with the belief of having published a most ingenious explanation: but our readers must be better endowed with intellectual sagacity then we are, if they can discover any thing in the chapter which we have transcribed but conceit and misapprehension. Who ever regarded & as a letter? It is the abbreviation of a word, consisting of two letters *et*, written at first *es*, and altered for dispatch into its present form &. The author might as well have laboured to prove that the algebraical sign of equality = was not a letter; or that the figure 8 was a beautiful true lover's knot, designed most happily to express a kiss, or any other action or thing eight times repeated. The & is subjoined to the alphabet, not as a letter, but as a character frequently used among words and letters, to express conjunction: but there is no mystery in its form: nor has M. Moussaud, with all his knight-errantry, performed any service to its reputation.

We do not think that the Abbé has been much more successful with the real letters, than with this appendage of the alphabet. We shall enable our readers to judge, by extracting a part of his explication of the vowel A:

'It cannot be denied that the sound A is the first and the most natural of all the articulate sounds. It is the first, because it is that

which all men utter on first opening their mouths; it is the most natural, because it is that which most frequently escapes them in the different exclamations of fear, surprise, sorrow, &c.; for which we may indeed easily account, since nothing more is necessary to its formation than merely to open the mouth. Hence the opening of the mouth is its true sign, and the image most proper to express it to the eye. It is thus that we draw the character A, which is nothing more than a sketch, or outline of an open mouth, as will be better seen by representing it thus ⊳.

'This figure (somewhat incorrectly drawn, it must be confessed) acquires a surprising energy, as by degrees it obtains perfection. This perfection is observable in the flowing lines of the written A; the form of which is very antient. It so perfectly represents a mouth, that it might make a part of a portrait in profile, without submitting it to any change, but simply by disposing it thus ⊲. Under this aspect, every one must see, at the first glance, the two lips; while the kind of angle placed between them represents the tongue, which is more or less seen when the mouth is opened.'

So pretty a conceit may be supposed to have pleased the author; and, in order that the reader may become a convert to this explanation, the human face divine is delineated with the ⊲ mouth. We advise the Abbé to make an aleph א mouth, or to prove that the antient orientalists opened their mouths differently from the moderns.

As A is said to represent the aperture formed by the lips when the mouth is open, so B is said to be the expression of the lips closed, or the outline of the lips when the mouth is shut. Here the Hebrew beth ב presents a *wide* remonstrance against this idea.

The sound of the vowel E indicates the sign of existence, is the breath of life, is the sound of respiration, and is properly represented by the image of the organ by which we respire, or of the two nostrils of the nose.

The vowel U, being a gutteral, is said to take its form from the throat.—On the supernumerary vowel Y, we find a long dissertation, to little purpose; unless it be of importance to discover a kind of relationship between the first and the last of the six vowels, A and Y.

M is considered as the sister of B and P, and as deriving its figure from the shape of the same organs; representing the mouth opening, shutting, and re-opening.

The dental D derives its figure from the arc formed by the teeth, closed by a perpendicular line *.

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* In the second volume, D as well as T is made a *striking* letter; and as the latter represents a *hammer*, so the former is said to be the figure of the *fist*.

T is said to be a *striking* letter *(une lettre frappante)*, because in its enunciation the tongue strikes against the teeth; and therefore it was proper that its sound should be represented by the figure of a hammer, of which indeed it is a sketch.

C and K, having nearly the same power, assume with a little contrivance the same form. The semicircle C represents the curvature of the tongue; and the strait line on the top of the arc denotes the resting of the tongue against the palate; thus ⊐, the elements of K, IC, are developed.

Q being stated to be an equivalent of C and K, and to represent the same articulation, its shape is likewise derived from the tongue. The round or circular part is copied from the swelling of the tongue, while the tail of this letter is a faithful image of the tip.

Such are the great discoveries made by this writer! The second volume abounds with reflections relative to the subject which M. Moussaud has so laboriously discussed: but these are too various and too much extended to admit of our examination of them. A section is devoted to Ventriloquists, who are represented as speaking without employing the usual organs of speech; who form the sound of the voice within themselves, and cause it to issue as it were from their stomach and intestines. The writer offers no explanation of this phænomenon, but refers it as a proper subject of inquiry to the anatomical philosopher; and he presents us, instead of science, with a Latin epigram, on a woman who talked without having a tongue:

"*Non mirum elinguis mulier si verba loquatur;*
Mirum cum linguâ si qua tacere queat."

As this examination abounds with traits of a poetical imagination, it is not improperly concluded with the following apostrophe to the inventor of letters:

'Illustrious *Thoth!* Immortal *Hermes!* this is thy work; such are the effects of thy brilliant invention. The literary world is indebted to thee for its very existence. Thou art its parent and its founder, and art therefore entitled to become the object of its incessant eulogy. May all writers be anxious to celebrate thy name and to chaunt thy praise! In proportion to their glory are the obligations which they owe to thee; for thou, in placing the pen in their hands, didst open to them the road to immortality.'

Let it be acknowleged, in conclusion, that, if M. Moussaud be not a convincing reasoner, he has contrived not to be a dull writer, even on a dull subject.

Moy.

ART. IV. *Oeuvres Mêlées, i. e.* The Miscellaneous Works of Count ALEXANDER DE TILLY. 8vo. Berlin. 1803. Imported by De Boffe, London. Price 6s. sewed.

AN elegant levity, sometimes bordering on frivolity, characterizes a considerable portion of these miscellanies. Some of our readers may recollect that several of the fugitive pieces appeared in 1783, and the two political letters at a subsequent period. Of the republished articles, it is our duty to observe that most have been carefully revised, and some rather artfully accommodated to the circumstances of the present times. The additions, which are comparatively numerous, will not detract from the writer's literary reputation. The general spirit of the volume induces us to regard the Count as an admirer of the old French school, addicted to gallantry and courtly poesy, retaining in mature age the sprightliness and vivacity of youth, and solicitous to soothe the painful recollections of general and individual suffering by the cultivation of letters and commerce with the muses.

If we were called to pronounce a more specific and discriminating verdict, we should be able to praise the Count's ease and gracefulness of versification rather than his fertility of fancy or brilliancy of imagery. His polished manner occasionally recalls the better days of French literature: but his disregard of strict decorum too often extorts our censure; and we must not dissemble the undisputed truth, that loose morality is more attractive and more dangerous when exhibited in the language of a gay and accomplished scholar, than when retailed in rude or vulgar phraseology. The reprehensible licence, to which we allude, unfortunately infects some very pretty verses addressed to the Marquis *de Par-y*, and the concluding part of the pleasing stanzas to the Prince of B***.

The same objection does not apply to the critical epistle addressed to *Champfort*, and originally composed in 1785. When he re-cast it, the author could not refrain from descanting on the political fates of his native country, which are wholly unconnected with the subject of the poem. The indulgent reader, however, will pardon this breach of unity of design, in consideration of the beautiful picture of domestic retreat, enhanced by the cultivation of the arts and sciences. We refrain from inserting the whole passage only on account of its length, and because we should scarcely do justice to it in a hurried translation.

The *Soldier's Farewell* breathes that amiable simplicity and pathos which distinguish the best of those French airs that are designed *Romances*.

Although

Although we can never wholly exempt the happiest effusions of the Gallic muse from a certain tameness of spirit, we are sensible that Count DE TILLY is not an unsuccessful imitator of his most distinguished predecessors. In some cases, we have even remarked a coincidence of expression which an ill-natured critic might term plagiarism. Thus; *Recevez mes dernieres larmes*, of *Voltaire*, may have suggested *Recevra mes derniers soupirs;* and the following lines,

> ' *Ce n'est plus le jeu qui m'occupe,*
> *J' aime mieux exercer mon esprit, ma raison,*
> *Après avoir trop long-temps été dupe,*
> *Je n'ai pu me resoudre à me faire fripon,*'

recall those of Madame *des Houliers*,

> " *Le désir de gagner, qui nuit et jour occupe,*
> *Est un dangéreux aiguillon :*
> *Souvent quoique l'esprit, quoique le coeur soit bon,*
> *On commence par être dupe,*
> *On finit par être fripon.*"

From the prose compositions, we should gladly select for the entertainment of our readers the true and horrible story intitled *d'Ormont*, which is told with admirable effect:—but it occupies eighteen busy and eventful pages, which set abridgment at defiance. We shall, therefore, confine ourselves to a few detached extracts from other parts of the collection.

The following, among other particulars, are related of *M. de Villette:*

' During what was called the *King's trial, Robespierre* and his accomplices had posted their myrmidons about the door of their gloomy mansion. There all the deputies were enjoined to vote for the death of *the tyrant,* or to forfeit their lives. Who can say how many timid suffrages such a base expedient cast into the scale of this assassination?

' At the tribune, M. *de Villette* had the courage to denounce the menace, and even to maintain that the king could not be brought to trial.—He voted for *deportation.* When we reflect on the circumstances and on the comparative weakness of the man, this conduct was magnanimous—this effort was immense. Indeed, it may be said to have put a period to his existence. A few hours after he had returned home, he was seized with a fever; and his death was better than his life.'

The *Parallel of Abdas and Moursa* is an ingenious *jeu d'esprit*, and a happy imitation of those trim historians who delight to weigh a pair of characters in the scale of contrast and antithesis: but the Count's remarks on London, which are lively, and for the most part accurate, *come nearer to our business and bosoms.* Westminster-abbey is thus introduced:

' The

'The longer I live, the more I learn to distrust report. Travellers usually embellish the objects of their contemplation, as the lover dwells with rapture on the perfections of his absent mistress. Westminster-Abbey, however, is well worthy of the attention of strangers: for it contains the tombs of the kings and queens of England, and of many distinguished persons of both sexes, who, fortunately for themselves, were neither kings nor queens. My attention was directed to two sorry chairs, half of wood and half of stone, on which, I was told, is performed the ceremony of coronation. To receive the crown under the same roof which is destined to cover his remains, is to the monarch an impressive lesson of the vicissitude of human affairs.

'The wax figure of Queen Elizabeth is said to be an excellent likeness. If so, she was a tall queen—nay, a tall man, though certainly not a handsome woman. Hence the Earl of Essex, who so long retained her good graces, was rather ambitious than amorous. Although few objects are less calculated to afford amusement than a tomb, I could not command my gravity when I beheld that of an Earl of Exeter. This nobleman had been twice married; and, during the mourning of his first widowhood, he had erected a triple tomb for his departed lady, for himself when his turn should come, and for her whom he selected for his second consort. He had reserved the middle station for himself; and the deceased countess could not demur to this arrangement. As he happened, however, to decamp before the second, who, probably, was no great admirer of his living manners, she begged leave to decline reposing by his side, and thus frustrated his intentions. Should his lordship one day awake, he must be contented to bestow all his affections on his first partner, on his right hand.'

'At Westminster is the tomb of the celebrated *Newton*. In vain I inquired for that of my friend, *Richardson*; and I lament the want of such a monument the more, because the English are not duly sensible of his merits as a writer. In my own opinion, he is the greatest master of the pathetic that they have ever had, and, if we except his tedious passages, one of the finest geniuses in the world.—How few are worthy of reading Clarissa! An Englishman of much wit once said to me, *I could never read that book to an end—Lovelace is such a poor and insipid character.* Hardly could he believe that I was in my sober senses, when I represented a real Lovelace, acting his part in the world, as one of the greatest characters that ever appeared. Lovelace, I grant, is a seducer; but Lovelace might be a general: Lovelace is a seducer, but Lovelace might be whatever he wished to be. Nay, I may safely assert that no single individual can ever resemble Lovelace.—As for Clarissa, with the exception of a little folly, she is an angel.

'What knowlege of the human heart! what portraits! I would rather idolize Richardson, who is so easily understood, and understood with so much delight, than, like some pedants in France, lavish my praise on the sublime and monstrous Shakspeare; an author whom, I must be permitted to say, they can seldom comprehend, since he is not always intelligible to the English themselves.'

In

In a subsequent period of his life, however, the Count formally professes that he is master of Shakspeare's language; and that he could never read one of his tragedies from the beginning to the end, nor one of his pages with persevering admiration, He also acquaints us, for the first time, that Hume's History is slighted in England, because the author was a native of Scotland, and ventured to criticize Shakspeare without prejudice.—On this side of the water, such assertions require no serious refutation: but they confirm our suspicion that the present writer has bestowed more attention on his style than on the truth of his positions. When he compliments Frederic II. of Prussia on his proficiency in the French language, he seems to have been ignorant that Voltaire and other literati *washed the Prince's dirty linen*, and that the royal hero and philosopher was a novice even in orthography.—Is the Count prepared to substantiate those charges of infamy with which he loads the memory of the ill-fated *Condorcet?* or seriously to maintain that the enormities of the French revolution proceeded from the influence of *philosophy*, and not from the want of it?—His affectionate and intrepid loyalty to one of the most unfortunate of sovereigns would claim no common praise, did he not celebrate the *just* and *moderate* government of a military despot, at whose name humanity will long shudder.

Muir.

ART. V. *Second Voyage à la Louisiane; &c. &c. i. e.* A Second Voyage to Louisiana, being a Sequel to the Author's first Narrative: containing the Military History of General *Grondel*, who long commanded at Louisiana; and who has been honoured with the Rank of 110 Years of Service: an Account of the most Useful and most Extraordinary Productions of that fine Colony, and of its most fertile and profitable parts; new Reflections respecting the Colonies in general; and the Regimen proper to be observed by Persons on their first Arrival. By BAUDRY DES LOZIERES. 8vo. 2 Vols. Paris. 1803.

THE first voyage to Louisiana, to which the title-page of these volumes refers, was published without the author's name, and was noticed in our 40th vol. N. S. p. 539. From a dedicatory epistle which now occurs, we farther learn that M. DES LOZIERES was formerly an inspecting Colonel of Dragoons, and is now historiographer of the marine and of the colonies. In his preface, he remarks; 'the encouragement given by the public to my first voyage to Louisiana (*que l'on vend chez Dentu*) determined me on presenting them, under the title of second Voyage to Louisiana, with the remainder of my observations respecting this fine and curious country.' In our former

former article, we censured the impropriety of assuming for a publication a title which did not correspond with its contents: it certainly is a species of literary fraud; and this writer must now be considered an old offender. Of this which he has called the 2d voyage, he says, 'the work is not merely such an one as its title announces. I have allowed myself, for the benefit of the colonies, to enlarge the circle;' &c. The expression *not merely*, in the general use of the phrase, implys the completion of some condition expressed: but no Voyage to Louisiana appears in either of the volumes, and very little matter respecting Louisiana itself. If we search for the motives which governed this choice of a title, we find it difficult to imagine any other than a desire to captivate the attention of the public, whether by colours true or false.

The chart which accompanied the first '*Voyage*' is disowned by the author, as being manufactured and published without his knowlege; and thus abandoned, it will probably remain unowned and unprotected. He also acquaints us that he wished to have given with the present volumes a chart of Louisiana, such as he had composed from materials of his own collecting: but that the length of time, and the necessary expences, have obliged him to postpone this undertaking to a future and more convenient period, when he proposes 'to combine the parts, which are all prepared, *in a grand style*, (*avec luxe même*) and to make a chart that shall merit the honour of being framed.'

From the life of the veteran General *Grondel*, which occupies nearly 200 pages of the first volume, we learn that this officer was born in 1714; and that in 1720 he was received as *Cadet gentilhomme* in a Swiss regiment, which was taken in the following year into the service of France. The title-page and the introduction agree in attributing to M. GRONDEL 110 years of service: an enigma which the author explains by citing some ordinance which allowed the service of officers in the colonies to be reckoned double. The General appears to have been an active and brave officer, whose military talents were exercised many years in the Province of Louisiana against the Indians, or against the English, while Louisiana was subject to France. The writer, however, repeatedly loses sight of his hero; and indeed his digressions are both frequent and sudden. In his diversified career, speaking of the state of the first French colonists at Louisiana, he introduces this character of his countrymen: 'The savages believed that, by harrassing the new comers, they should force them to re-imbark: but they had not the smallest idea of the constancy of Frenchmen determined to conquer. When they experienced the onset of these Frenchmen, they compared them to those rapid torrents which

descend

descend foaming from the mountains to ravage the plains. At this terrible sight, they recoiled, and regarded the French as divinities whose pardon they ought to implore. Afterward, when they became acquainted with the beneficence of their conquerors, they were confirmed in the belief of their divinity, by contemplating their intelligence, their gentleness, their generosity, and all the virtues which distinguish them.'

In the course of this biography, we find a strange anecdote of M. *du Tissenet*, a French officer, and father-in-law to the General:

'He was taken by the savages; who, according to their execrable custom, determined to scalp him and those of his comrades who were made prisoners with him. Fortunately, the savages were extremely ignorant, and M. *du Tissenet* understood their language. It is necessary to observe that he wore a peruke: seing their determination, he suddenly took a knife, and cutting himself in the forehead so that his face was covered with blood, he, with seeming effort, pulled off the peruke, and, throwing it on the ground, in a fierce tone of voice told the savages to take it if they dared. The astonishment and admiration of the Indians, at such an apparent instance of fortitude, was so well managed by *Tissenet*, that he succeeded in obtaining his own release, and that of his companions.'

In 1772 M. *Grondel* was appointed commandant at *L'Orient*, which post he filled till he was displaced by the revolution: He is still living, and the author bestows on him the character (intended no doubt as encomium) of being 'at the age of 90, much more *supportable* than many young people who by licentiousness have made themselves old at thirty.'

The next section of this volume is intitled *Colonial Reflections*: of which the first subject is, In what manner can the Spaniards most properly dispose of West Florida? This question the author very naturally answers, in favour of France.—Next follows a dissertation on the character of the North American Indian, a topic on which the travellers and writers of the French nation have dilated with great pleasure, and which they have moulded into every shape of which it was susceptible. The reader, therefore, will have little cause to wonder, if he should here meet with repetitions of remarks which he may remember to have seen elsewhere. A short table, relating principally to the manner and expence of acquiring grants of land, with the prices of slaves and of cattle, and a few hints respecting cultivation, might have afforded some useful information to new settlers, if it had been the destiny of Louisiana to have remained under the dominion of France. The table is given in the form of questions and answers; and the particular subjects are mixed with little atten-

tion to method. The first question may enable our readers to form some opinion of the geographical talents of the author, and thence to infer, perhaps correctly, the value of his promised chart of Louisiana: viz. 'In what degree is Louisiana situated?' The answer, 'its longitude is 279 degrees 28 min. 9 sec.; its latitude is 29°.39″.' We often hear of a country being situated between two meridians, and between two parallels of latitude: but this writer, with unprecedented and almost inconceivable precision, has fixed the whole of a large province to a point.

While treating of Louisiana, the author says, 'a person whom I regard as capable of giving much intelligence respecting this rich country is M. *Courrejolles*, engineer at St. Domingo;' and having by this speedy and easy conveyance transported himself and his readers to St. Domingo, he proceeds to take into consideration the affairs of that colony. He mentions a report which was in circulation there, but without vouching for its truth, 'that the European Generals had a secret understanding with the black chiefs, and the following manœuvre is laid to their charge. Some outposts were filled with various kinds of warlike stores and provisions, of which the negroes were advertised by private signals. They immediately advanced in great force to attack the post: the white soldiers seized their arms and made preparations for defence: but suddenly their commanding officer ordered a retreat, and they evacuated the post in good order without being pursued or molested. The negroes took possession, and after having conveyed away every thing that they found, they brought into the place a quantity of coffee, sugar, and money. The next day, or a few days afterward, the whites advanced to retake the place, and the negroes, in their turn, retreated. It is said, though I do not believe it, that this mercantile evolution was often practised, and that many fortunes were made by it.'

On his return to Louisiana, the author gives a list of merchandise, of the produce or manufacture of the United States, which was conveyed down the Mississippi into Louisiana during the year 1801, with some account of the navigation and of the vessels employed at New Orleans.

The *Avant propos* to the 2d volume informs the public of a loss which the author promises to repair as much as he is able. 'In proportion as I can recall to memory the articles which composed my *Encyclopedie coloniale*, on which I had laboured eighteen years, and which would have formed 24 or 25 volumes in 4to. if the *brigands* had not robbed me of it in their insurrection, I shall communicate them to the public.' This appears to be one of those extraordinary efforts of human in-

dustry, which surmount obstacles seemingly invincible. We recollect that, in the former publication of this writer, he acknowleged himself almost a stranger to the sciences; and therefore we may receive this *trait* as a proof of 'constancy determined to conquer.'

The great variety of the contents of this volume must prevent our enumerating all the particulars: but the following are among the most remarkable.—A memoir containing a description of the *Port-Mouche*, an insect which is destructive to the indigo and manioc plantations: it feeds on the manioc leaves, in some respects resembles the silk worm, and produces a substance which M. DES L. calls *Coton Animal* and compares to the finest cotton. This memoir was read in the *Institut National, An.* 7.—A botanical manual of colonial productions, in alphabetical order.—A vocabulary (also alphabetical) of the Congo language.—Some nautical descriptions of the coast of Guinea.—Medical virtues of some plants, and medical advice to those who live in the colonies, or in warm countries.—The remainder of the volume is occupied by plans and opinions on a variety of subjects, anecdotes, poetry, and other miscellaneous matter. The principal of the poetical effusions is a song in praise of *Bonaparte.* In his political reflections, the author discusses that point which has so often agitated mankind in almost every state of society; *i. e.* which kind of government is the best? His conclusion is, 'that only in the true monocratical system can be found that happiness which men are capable of enjoying on earth.' In general, throughout the work, the political opinions expressed by M. DES L. appear to be dictated by a spirit of complaisance for the First Consul, *le plus étonnant des hommes, descendu pour ainsi dire du ciel!* The very motto inserted in the title page of the 1st vol. must, we imagine, have been intended as a *Consular* compliment:

"*Si canimus silvas, silvæ sint* CONSULE *dignæ.*" VIRG. BUC.

Our readers may suppose that, in this heterogeneous mass, they may occasionally meet with something useful: but the author's style of language is frequently fantastical, and sometimes confused. Most of his *reflections*, as they are termed, are evidently opinions or ideas adopted *without* reflection.

M. DES LOZIERES gravely remarks that it has with great reason been asserted, that of all madness the *scribendi cacoethes* is the most incurable; and as an exemplification, he informs the reader that, having visited Italy and amassed much information concerning that country, he hopes one day to publish the fruits of his labours. It is possible that, from this source, and from the author's recollections, the public may be furnished with more 'voyages to *Louisiana.*'

Capt. B....y.

ART. VI. *Les Femmes, leur condition et leur Influence, &c. i. e.* Women, their condition and influence in Society, among different Nations, antient and modern. By JOSEPH ALEX. DE SEGUR, 3 Vols. 12mo. Paris. 1803. De Boffe, London. Price 15s. sewed.

THESE volumes will probably be received as a very acceptable present by our people of fashion; since, in the course of them, subjects of the first importance to these parties, though they may be considered as incidentally introduced, are treated very much at large. In the disquisitions which occur in them, what is called the *ton* is described with skill, the modes are traced to their principles, polished manners are analysed, the practice of the *bel usage* is detailed, and elegance of behaviour and all the shades of good breeding are sketched by the hand of a proficient. While, however, many of its parts will induce the beaux and the belles to regard this performance as designed solely for them, the philosopher and the statesman may not deem it altogether unworthy of their attention. Though the author has borrowed freely from other writers in regard to facts, his work is, in every sense of the term, completely original. Some of his positions on the state of the sex among the Chinese, and the antient Egyptians, may be questioned: but this would only lead to a dry discussion, would be doing little more than setting conjecture against conjecture, and would be less agreeable to our readers than the account which we propose to give of the writer's statements and views, as detailed in the more interesting parts of the publication.

We observe a sort of innovation in this class of compositions, introduced by M. SEGUR, which, in the present instance, has certainly been an improvement, because it eminently assists us in forming a due conception of his notions and views. We allude to the tales with which he closes his accounts of each period of the history of the treatment of women, founded on the facts there related, and intended to illustrate them and render them more familiar. These tales, independently of answering this valuable end, possess the highest merit considered in themselves, with respect to structure, interest, and elegance.

On a view and comparison of the conduct and demeanour of the sexes in different situations and various relations of life, the author maintains that women are not inferior to men. He keeps this doctrine constantly in view, and makes all his facts and reasonings refer to it: but it appears, morally considered, that he regards them as *magis pares quam similes*; for he lays it down that to one sex belongs the power of force, to the other that of grace and beauty; and he argues that, on fairly weighing

ing their respective excellencies, we shall find the balance even. While it is indubitable that each is absolutely essential to the being and well-being of the other; that high and most important functions are assigned to each; and that each, by endeavouring to attain the perfections of its nature, may render itself a glorious and sublime object; the question, on which side lies the bare superiority? will remain extremely complicated, and must be regarded as more curious than important.

In giving an account of the state of women in Greece, M. Segur observes that at Athens the courtezans were the most accomplished of their sex; while the noble matrons, and young women, were bred up in ignorance, confined within their mansions, and employed solely in household cares. The Greeks, who were excellent judges of what contributed to enjoyment, who well understood the sex, and who best ordered what related to them, were aware that women were competent to every situation: but they perceived that, to call forth all the opposite qualities with which nature had endowed them would be turning none of them to good account. Naturally adorers of talents and elegance, but lovers of domestic order, jealous of their rights over the sex, and considering its virtues as the safeguard of the education of their children, they were of opinion that, in the composition of a wife, estimable qualities were preferable to brilliant talents; though they admitted, on the other hand, that the austerity of duty did not well comport with the arts of pleasing, and that the rigorous laws of modesty were ill calculated to gratify the desires of the voluptuary. The social arrangements in Greece were founded on these views. The Greeks did not, according to the practice in France, hope to find two distinct women in one individual: but their foresight divided the sex into two completely distinct classes: the one devoted to pleasure, the other set apart for duty; the one seeking esteem as its reward, the other courting incense and homage. The French, says the author, less reasonable than the Greeks, look to their women for gratifications which suppose contradictory faculties, and habits which are mutually destructive of each other; and hence follow so many ill regulated families, so many ill educated young people, and so much injustice in their judgments of women. Let any mother reflect on the lessons which she gives to her daughter, in order to render her what is called at Paris an amiable woman; and she will perceive that she endows her with different qualifications which are equally calculated to secure the esteem and to call forth the contempt of her husband. The Athenians, themselves too much inslaved, were apt to forget their wives; the French have trained them too much in order to please; while

the English have shewn a better judgment in their estimates, and have observed a just medium in this respect. Strict to their principles, says M Segur, the interior of English families is more pure, and yields to them a permanent happiness, which cannot but be impaired if their manners should ever become as corrupt as ours.—A letter, which Aspasia, the famous courtezan, is here made to write to a young accomplished Grecian lady, admirably depicts the character and influence of that class of women in Athens.

The Roman women, the author observes, were unceasingly engaged in domestic concerns, and strangers to pleasure except as duty led to it. The education of their children, the spinning of the wool which was to clothe their husbands, and prayers to the gods in their absence for their return, formed their daily occupation, and the object of all their thoughts. Long did this purity of manners, which rendered the women so estimable, prevail at Rome; and the first departure from it was the commencement that universal degeneracy, which ended in the subversion of the empire.

In regard to the introduction of Christianity, the writer remarks;

'Under the influence of this dispensation, all persons made efforts to reform; the women cherished modesty; duties were regarded as pleasures; wise institutions were formed; vows were pronounced indissoluble; and marriage, which had been no more than a civil pact, became a sacred solemn bond, sanctified by the altar and protected by the laws. Peace seemed to descend on earth, in order to invite mortals to love and cherish it; and religion, uniting all souls, seemed to form an immense chain which connected with the throne of the Divinity.'

M. Segur thinks that it was the leading object of Mahomet, to extinguish all the passions that might counteract the influence which he wished to obtain over the minds of men. He put an end to drunkenness by prohibiting the use of wine: but how was he to triumph over love? He kept its powerful influence in subjection by consecrating the custom of shutting up the women; by setting no limit to the gratification of desire; and by leaving to beauty no empire but the precarious and fugitive control over the senses. The plan was fatal to female influence. Among barbarians, women have emancipated from their chains, have softened their rude husbands, and have reigned over them: but under the dominion of the Koran, their lot experiences no amelioration, and slavery appears to be their eternal doom.

It was a fact not to be overlooked by the advocate of the sex, that the females, even among savage nations, indicate a dis-

disposition to gentleness and sociability; and that the first steps towards civilization are made by them. We are told that chivalry was no where carried to so great a height, nor the female reign anywhere so absolute, as among the Moors at Grenada, before that city fell into the hands of Ferdinand and Isabella.

When chivalry was succeeded by the love of letters, the females did not shrink from this new career. They attempted religious poetry, engaged in controvery, and addressed Latin harangues to Popes and Kings, exhorting them to make war on the Turk, the common enemy of religion and of the fair: they cultivated the Greek language; and the sublime poems of Homer were pronounced by the lips of beauty and fashion. Not contented with the honors which they gained in this course, they were desirous of forming the *subject* of these compositions; their will was law; Europe was filled with works, in prose and verse, which celebrated the perfections of women; and the first instance of this kind of homage was given by Boccacio, in his treatise concerning Illustrious Women.—While men still continued to addict themselves to intrigue and to war, the women shone by intellectual displays. The courts of Parma, Naples, Florence, Mantua, and Milan, were schools of elegance, instruction, and taste. To please, to love, to write, to expect and to receive homage, were the employments of the females.—Early in the 16th century, arose the question respecting the pre-eminence of the sexes; and the author supposes that the women themselves instituted the controversy, in hopes of establishing their domination.

'If, (says he), they submit to our rule, it is in spite of themselves. Patient by nature, as well as by the education which they receive, they are enslaved but not subjected; and they avail themselves of every occasion for seizing the pre-eminence, without the least apprehension that they shall fail in guiding the reins which they place in their own hands, or that they shall ill execute the undertakings by which they promise celebrity to themselves. Among the most distinguished advocates of their superiority, was the celebrated Cornelius Agrippa, who thus paid his court to Margaret of Austria, then governing the low countries. His work was extended to forty chapters, and he supported his system by physical, theological, historical, and moral proofs. Numerous writers maintained, and combated, the postions which he laid down.'

The author puts a case which, we doubt not, happens too often in his country; viz. that in which paternal and maternal tenderness is opposed to love; and he shews that the latter obtains a victory over this passion, while the former invariably yields to it: whence he infers that genuine sentiment is stron-

ger in woman than in man. In aptitude for friendship, he seems to give to man the palm, when he says; 'Let us follow the laws of nature: let women live for maternal tenderness, and for love; and let friendship be with them the second interest of their lives: since man alone, perhaps, can be impressed by both sentiments in an equal degree. I may displease, by this judgment, a sex which I revere, but I believe that I have stated the truth.'

With respect to letters, this writer is of opinion that the genius of women is more delicate than profound, and that it analyzes and defines with more elegance than justness. If the art of *Corneille*, *Racine*, and *Voltaire*, demands strength superior to that which belongs to woman, no author, (he asserts) antient or modern, has attained to that excellence in epistolary writing, of which Mad. *de Sevigné* was mistress; and he thinks that even *Florian*, in his Galatea, is less happy in his style than Mad. *Riccoboni*. Energetic ideas, he says, are denied to women; they think, but they rarely meditate; they dress up and they lay hold of relations more readily than we do; and all the slighter affinities they represent with a grace that is peculiar to themselves. 'In love they feel more strongly than we do, and they better speak its language. A woman would have written some pages in the new Heloise better than *Rousseau*, but no female could have supported the sublime and continued eloquence which distinguishes that work. A woman might die like Julia, but she would not be able to pen a letter which would so well describe her last moments.'

On the subject of beneficence and pity, M. SEGUR thinks there can be no question. Women feel more strongly and promptly the miseries which they behold, and therefore must pity them the more. The least complaint reaches their hearts, and even a slight wound their sight cannot endure. Their mission on earth seems to be to appease and to succour. Attracted towards the unfortunate, when we are barely moved, they have already relieved them before we have resolved to fly to their succour.

In the course of this work, we have a very interesting account of the interior of the court, and of the Parisian fashionable world, in the reign of Louis XIV. The sketch here given of that monarch is flattering, but we do not deny that it is on the whole just. Fate, says the writer, seemed to aim at bringing together in one reign more great men than had been seen since the beginning of the monarchy. Genius, talents, the fine arts, and all kinds of knowlege adorned this period. The monarch, well adapted to support the pomp of

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the throne, derived from and lent lustre to all that surrounded him, and the éclat of which dazzled all beholders; while astonished Europe asked, with a sort of secret envy, which she ought to admire most; Nature, who had produced at once so many luminaries, or the address of the reigning prince, who had contrived that they should shine with so much brilliancy? Louis, in the prime of his days, paid constant homage to beauty, and shewed on every occasion a tender respect for women: but he was truly a king; he governed himself; under him, the system by which a great people is rendered manageable with ease was established and respected: while the women quitted the theatre of politics, were contented to be the ornaments of this memorable period, and surrounded the throne of Louis, uniting charms to splendour, and grace to glory. The gallantries of this monarch are pleasantly detailed in a spirited and neat dialogue, which is supposed to have taken place between the disappointed *Lauzun* and the discarded *sur-intendant Fouquet*, during their confinement in the same prison at Pignerol. *Lauzun* is made thus to describe the style of them:

'There was grandeur even in this prince's manner of offering homage to beauty; it was by brilliant efforts that he sought to conquer it, and to triumph over its rigours. Carried away by love, he made a divinity of the object which he importuned, that he might not degrade himself in his own eyes; and like Jove, while amorous, there appeared symptoms of power in his most tender and submissive attention, and the lover never wholly concealed the sovereign. He was imitated by all in the court, and in the city. No king ever gave the tone as he did, and influenced like him the conduct and almost the thoughts of his people. Our gallantry had a tincture of elegance, and of respect for the sex, of which the monarch had set us the example. There was less of chivalry than under Francis I., less of tenderness, perhaps, than under Henry IV.: but, if I may use the expression, there was more importance in love, and more dignity in the part which the women acted, under Louis XIV.'

The women did not merely give éclat to Versailles, but at Paris society was rendered brilliant by the talents and genius which the sex of all ranks and classes displayed. At the very same period that Mad. *de Sevigné* wrote her charming letters, Mad. *Dacier* rendered herself celebrated by her knowlege of antient languages, and by her translations; Mesd. *Lafayette* and *Scudery*, by their romances; Mad. *de Suze*, by her elegies; Mad. *Deshoulières*, by her poetry; Mad. *de Lambert* rendered morality lovely, and deified friendship in her writings; Mesd. *de Montpensier*, *de Longueville*, *de Caylus*, &c. wrote very interesting memoirs: in fine, *Ninon* lived, the charm of her age, exercising an influence by her beauty on the heart, equal to

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that which she maintained by her amiableness on the mind, and by her probity in the esteem of her friends, whom she attached to her last moment. At this brilliant epoch, when art and nature, conspiring together, exhibited so many grand objects; when general emulation seemed to force every one to exhaust, in a manner, all his faculties in order to attain perfection; this was a period which tried the merits of the sex. Had women been very inferior to men, they would have been eclipsed, and they would have formed no part of the picture. This, however, was not the case; confident in their strength, they entered the lists; and they had the merit of adding to the lustre of the age, without departing from their proper province. If greater men never appeared than in the time of Louis XIV. never also were seen a greater number of celebrated women.

The author takes every opportunity of panegyrizing Mad. *de Sevigné*; and what reader of sensibility and taste will not join in the praise? He properly extols the very eloquent letter which relates the death of the great *Turenne*; and he apologizes for the prejudice which led this amiable woman to prefer *Pradon* to *Racine*, and *Mascaron* to *Flechier*: a circumstance which gave great pain to those celebrated men. He can find no adequate cause for this injustice, except female vanity; and he does not see how it was possible that a person of her taste could, *bonâ fide*, have entertained the sentiments which she professed respecting the above mentioned great characters: he cannot conceive how a woman, who enchants us with turns which so nearly approach the sublime, could fail to relish *Racine*: but, says he, let us forget these weaknesses, and let us recognize the inimitable talent which formed out of a mere correspondence, one of the most interesting courses of reading that we possess; and by which this lady has rendered her affection for her daughter as permanent in the recollection of mankind, as it was lively and profound in her own heart.

'Had it belonged to women, (continues the author,) to create new objects in science or the arts, this was the period in which their emulation would have incited them to have attempted it: but they are born only to perfect, and to discover in things already known particulars and shades which escape us. Hence the charm of their writings of a certain kind, to which their ambition ought to confine itself: hence their superiority to us in epistolary writing; and in a particular class of novels, such as those of the inimitable *Riccoboni*. It may seem extraordinary, but it is certain that their taste is not always to be followed; which may induce the opinion that this attainment relates more to a knowlege of principles, to a profound meditation which teaches us the art of applying them, than to any natural endowment or happy instinct;—the sole guides of women, but guides too uncertain not sometimes to lead astray. How much does

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their innate talent for catching shades, relations, and the secret connections of thoughts, give them the advantage over us? We rule only by force, they govern by the effect of their art and their perseverance. We observe them without ceasing, and still do not know them: while they know us, without seeming to regard us. Perhaps this difference is to be traced to the relation of master and slave. Rarely does he who holds the chain know the captive while the latter constantly studies his guardian, and comprehends him. Thus we find the women discovering our interior at first sight, and hence arises their credit in particular, and their influence in general.'

We might produce many other passages, which shew the author's acute discernment, his sound judgment, and his intimate acquaintance with the state of society in France at a later period: but we have to apologize to our readers for having already exceeded our limits. We regret that they will not permit us to accompany him through the survey which he takes of the present state, character, and distinctive qualities of women in the several countries of modern Europe. He is an ardent admirer of the ladies of unfortunate Poland; and we suspect that he must have spent his best days in the society of the Polish belles: who, we are told, chaunt with delightful voices the stanzas of Tasso, and recite the verses of Delille; who have impressed in their recollections the enchanting scenery of Italy, and the terrific views of Swisserland; and who, seated in bowers designed by themselves, and surrounded by a thousand displays of art, discourse with rapture on the charms of nature. We cannot proceed even with any of the *parts* of this enchanting picture, but must refer our readers to the volume itself. It occurs in an admirable letter, stated to have been written by a very intelligent traveller, and whom we suspect to be no other than M. Segur. It has this conclusion, which it were unpardonable in us to pass over: 'I believe, if it were permitted me to chuse, I should take an Englishwoman for my wife, a Frenchwoman for my friend, and a Polonese for my mistress.'

Near the termination of the work, we are presented with a most interesting tale, founded on the loves of Elerz and Zunilda, and the adventures of Florvel; the object of which is to expose the folly and misery of libertinism, by contrasting it with virtuous love. A young Parisian supports the part of the libertine; and a pair in Dalecarlia, in the north of Sweden, display the charms, the pure enjoyments, and the unbroken felicity, which, in sequestered scenes, ever attend on love, innocence, and competence. The address which is discovered in this little production, the delicate touches which occur in it, its structure, and its moral, prove the powers of the author to be of the first rate.

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An English translation of this performance has lately appeared. We have not yet seen it, but shall speak of it hereafter. Jo.

ART. VII. *Histoire Medicale de l'Armée de l'Orient*, &c.; *i. e.* The Medical History of the [French] Army of the East. By R. DESGENETTES, Chief Physician. 8vo. pp. 400. Paris. 1802. Imported by De Boffe. Price 7s. sewed.

THIS work is divided into two parts; the first of which contains the Reports addressed, from time to time, to the Council of Health for the Armies, by Dr. DESGENETTES; and the second consists of Papers drawn up by different medical men employed in Egypt, while the French held that country, and directed to the author of the work. The first part consists chiefly of common (though very judicious) precautionary orders; many of which indicate that a want of harmony is to be found in bodies of medical men, abroad as well as at home. One of the most important rules was that of burning the clothes of soldiers who died of the plague; and it was also, as may well be imagined, very difficult to carry it into effect.

Contrary to the reports which were circulated while the French army was in Egypt, we find that the plague was introduced into the military hospitals; that many of the medical officers were shut up in rigorous quarantine with their patients; and that they frequently fell victims to the disease. Dr. DESGENETTES acknowleges that there could be no doubt of the existence of contagion in these cases; though some medical sceptics among ourselves have lately called it in question; and accordingly the patients seized with plague were separated, as soon as it was possible, from the rest of the sick.

During the encampment before Jaffa, however, though pestilential fevers were extremely prevalent, Dr. D. observes that he abstained from pronouncing the word *plague;* and those who have heard of the *sudden deaths* imputed, on good grounds, to the Commander in Chief, will consider him as still more cautious on that subject:—at least, in this volume.

In the course of this correspondence, we learn that, during a total want of Cantharides for the purpose of blistering, Dr. D. substituted with utility the practice of dropping boiling water on the skin.

The author remarked that several of his patients had the plague twice; which is an important fact at this time of unreasonable scepticism. He inoculated himself in two places, from the pus of a pestilential bubo; in order, as he says, to raise

raise the spirits of the army; and the only sensible effect, which he felt from this daring experiment, was from the inflammation of each puncture. He escaped the influence of contagion entirely, though his visits to the infected were frequent and protracted. He mentions, also, that a country-operator, who was in much request among the soldiers, was accustomed, after having opened bubos, or cut carbuncles, to place his bistouries, slightly wiped, between his turban and his forehead, without injury.

On the return of the French army through the desart, they met with leeches in some brackish waters, which fixed themselves to the palate or fauces, and occasioned hæmorrhages. They were sometimes detached by gargling with vinegar; but occasionally it was necessary to remove them with the forceps. The total loss of the French army, up to the end of 1800, is thus stated:

Killed in battle -	3614
Dead of their wounds -	854
Accidentally killed -	290
Died of common diseases	2468
Died of the plague -	1689
Total	8915

In the interval between the assassination of General *Kleber* and the landing of our troops, we meet with many excellent regulations drawn up by Dr. DESGENETTES, for improving the salubrity of Alexandria.—He also describes the symptoms of an ephemeral fever at Cairo, which begins with a cessation of moisture on the skin; and we are told that the usual salutation of the country, instead of being "How do you do?" is, "How do you sweat?": so necessary to health is the discharge by the skin.

The author continued at Cairo, during our invasion of Egypt, in order to superintend the hospitals while the ravages of the plague continued; and it appears that 2937 of the inhabitants were carried off by that disease in the month of *Germinal*, 1801.—On the whole, however, Dr. D. observes that the French army was more healthy in Egypt, than any of their other armies were in Europe. Respecting the plague, he says that they wanted medicines for the purpose of observations; and nothing satisfactory was established concerning the efficacy of frictions with oil.—The south winds, and warm moist air, favour the production of the plague: northerly winds, and the extremes of heat and cold, suppress it. The plague, he observes, is undoubtedly contagious: but the peculiar circumstances

stances under which contagion is propagated are not exactly known. Dead bodies do not communicate it; and it has been stopped by the intervention of the Nile; or even by a fosse, dug before a camp. All these facts certainly shew that the disease is propagated by individual contagion.—The Doctor also observes that the plague varies greatly in intensity, and that spontaneous cures sometimes take place in the most advanced stages. In 1801, when there were sometimes 700 patients ill with the plague in the castle of Cairo, upwards of a third and sometimes nearly half of them were cured. The young negroes and the Syrians, who had enlisted, suffered most.

The official Reports in Part II. have principally appeared in the *Memoirs concerning Egypt*, and have already been mentioned in our xxxviiith Vol. N. S. pp. 524—532.

A very clear account of the Ophthalmia is given by Dr. *Bruant:* who attributes its origin to the great heat and brightness of the atmosphere, and to the small sand perpetually floating in the air. Frequent washing of the eyes with cold water is said to be one of the best means of prevention, and of cure in the incipient state of the disease. We observe nothing particular in the method of cure, excepting that topical bleeding was little practised.

A particular detail of the friction with oil, in cases of plague, is related by Dr. DESGENETTES: but we have already mentioned his opinion of this practice.

An entertaining paper occurs on the Manners of the Egyptians, by Dr. CARESOLE: but we observe nothing new and important in it.

The volume is concluded by several topographical sketches of different towns, the results of which nearly correspond with each other. They prove that many of the diseases in Egypt, especially those of children, are owing to filth, and improper modes of living.—A set of meteorological tables, relating to Cairo, is added to these dissertations.

This collection will afford much matter for reflection to the medical reader, though it contains few striking facts. The benefits of a fine climate are denied in a great measure to the unfortunate Egyptians, by their own ignorance and the brutal disposition of their masters. How hard that the jealous policy of European states should condemn such a country to perpetual oppression and misery!

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ART. VIII. *Considérations Medicales*, &c. *i. e.* Medical Considerations on the Advantages of Wetnursing, for the greater number of the Infants of large Towns. Presented to and defended at the School of Medicine of Paris in the Month of Germinal of the 11th Year of the French Republic. By G. A. CHEVALIER-DEMOLLE, M.D. 8vo. pp. 46. Paris. 1803. De Boffe, London; 2s.

THERE seems to be little occasion, in the present day, for the employment of many arguments against the general exercise of one of the most natural and important duties of a mother, that of suckling her own child; since it unfortunately happens that the modern manners of society, particularly of its more elevated ranks, are very unfavorable to the domestic offices of the parent; and that too many mothers feel a ready and acceptable excuse for the neglect of their duty to their offspring, in the plea of delicacy or ill health. Cases without doubt sometimes occur, in which it would be improper for a child to be suckled by its mother: but such instances are very rare, and by no means appear to us to justify the extent to which the present author goes in his conclusions on this subject.

He is of opinion that, from the dissipation and irregularity which so much prevail in large towns, and into which females are of course misled, that they have too great a feebleness of constitution to be able to secrete milk of a sufficiently nutritive and healthy kind, for the support of the infant; and that, on this account, it is much better for the parent at once to renounce all ideas of suckling, than to endanger the health of the child by undertaking this duty, which she is imperfectly qualified to perform. To this mode he thinks there can be no reasonable objection, either on account of the parent or the infant; since the former can readily procure the assistance of an adult to relieve her from the accumulation of milk, which might create some inconveniences, while the latter might as effectually have the meconium carried off by a mild laxative, as by the purgative influence of the first secretion from the breast. He lays little stress on the attachment which is reciprocally formed between the parent and child by suckling; and he is even of opinion that, where this takes place to any considerable degree, it produces, by giving rise to excessive indulgence, disadvantage rather than benefit. It appears to this writer, that the tie thus created is in general only a transitory one, that it is purely physical, and that it can therefore have no influence on the moral affections. He also considers the attachment of parents to their offspring as having its origin in both from the

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same source, and existing in the same degree; and that it is on this account perfectly unaffected, in the mother, by the circumstance of the child deriving its nourishment from her.

The author admits that, when the mother is sufficiently vigorous, and her previous habits have been favourable to the necessary attention to her offspring, it is advantageous to suckle her infant: but, in considering the manners of large towns, and the unfitness produced by them for the maternal office, he affords the mother too easy an acquittance from her duty. When the parent is unable to give proper nutrition to her infant, and her own health is likely to be impaired by the drain which suckling keeps up, she is necessarily obliged to employ foreign aid: but it seldom happens that the body, which is able to prepare sufficient nourishment for the support of the fœtus, is not furnished by nature with adequate vigour for completing the duty which remains to be performed after birth. This duty we cannot regard so slightly as the author views it. An important function, like that of Lactation, could not have been instituted for a trivial purpose; nor is it reasonably to be supposed that its constant interruption can be a matter of perfect indifference. When it is practised, it always seems to have a salutary influence on the general health and spirits, both which many delicate females enjoy in a higher degree during the period of their suckling, than at any other time. This is an effect of Lactation which is by no means to be overlooked; nor must we also omit to mention that it tends to prevent the too frequent recurrence of pregnancy, which has often a very debilitating effect on the female constitution, particularly when delicate. The dissipation and irregularities of modern society are certainly incompatible with the duties of a mother: but the task of suckling generally produces a relish for domestic enjoyments, equally favourable to the health and happiness of the parent, and to the vigour and growth, as well as the subsequent good behaviour and improvement of the child. Without entering into an analysis of the nature of parental feelings; or employing any time in proving, what the author does not seem to admit, that there is a considerable difference between the tender solicitude of the mother and the less ardent though steady regard of the father; we cannot forbear to express our conviction that, if the attention of the modern fashionable mother were more devoted at an early period to the cares of her nursery, to which suckling would introduce her, there would be less of that disregard of and disrelish for domestic duties; and less of that taste for frivolous and exhausting amusements, for which many of our fair countrywomen are too much distinguished. The rearing of

the child is the peculiar province of the mother: but, in order to perform with alacrity various duties of which the helpless period of infancy demands the exercise, she must be inspired with all that tender solicitude and anxious fondness which nature has wisely calculated suckling to produce.

Yell.

ART. IX. *Mémoires sur la Respiration*, &c. *i. e.* Memoirs on Respiration. By LAZARUS SPALLANZANI, translated into French from the unpublished Manuscript. By *John Senebier*, Member of various Academies and learned Societies, &c. 8vo. pp. 373. Geneva. 1803. Imported by De Boffe, Price 6s.

THE indefatigable SPALLANZANI, whose death the philosophical world has recently lamented, has not yet ceased to interest and improve his fellow labourers. The results of many of the numerous and important objects of inquiry, which engaged his constant and unwearied attention, had not at the time of his decease been laid before the public; and it has devolved on an able and intimate friend to perform this grateful duty to his memory. From the nature of the Abbe's previous investigations, he was led to examine, with much attention, the phænomena of respiration, and the circumstances attending the exercise of this function in the various classes of animals. Modern chemistry presented an extensive field of improvement in this branch of physiology, and afforded the means of more accurately determining the changes produced by it on the animal body, as well as more correctly ascertaining the purposes which it is intended to serve. Whether the whole of the Abbé's deductions will stand the test of future inquiries, time only can determine: but the world can never consider itself as too much indebted to this illustrious philosopher, for the ardour and ingenuity of his numerous investigations, which have thrown so much light on various obscure parts of physiology.

The work, which we are now to notice, is preceded by an historical account of the author's life and writings; of which we should make a short abstract, if we had not already communicated a similar outline in our account of the Abbé's posthumous publication on the Blood, in our 38th vol. N. S. p. 353. We shall, however, add a few particulars of his literary labours and general character.

In the year 1761, SPALLANZANI addressed three letters to *Algarotti* on his translation of Homer, which are inserted in the 14th vol. of the works of that author.

In 1762, after a journey in the Appennines, he gave a description of a "Mountainous excursion, with some observations on the origin of fountains."

The year 1765 produced an account of microscopic observations relating to the system of Needham and Buffon, in which he established 'the animality of microscopic animals by solid and ingenious arguments.' Afterward, he published an essay on the rebounding of stones from water; the intention of which was to shew that this effect is not produced by the elasticity of the water.

In 1768, he circulated a prospectus of a treatise on animal reproduction, in which he demonstrated the regeneration of various parts of animals, particularly of the heads of snails, the feet of toads, the feet and tail of salamanders, and the bones of their jaws. The project of a large work on this subject, however, was never executed. In the same year, he published a small essay on the action of the heart and blood vessels, which was reprinted in 1775, with three new dissertations, on the phænomena of circulation as observed in the whole system of vessels; on the phænomena of languid circulation; and on the motions of the blood, independently of the action of the heart and the pulsation of the arteries. About the same time also appeared a plan for experiments on the generation of mules in the class of insects.—On his arrival at the University of Pavia, he published in 2 vols. a translation of the contemplations of *Bonnet*, which he employed in his lectures as a text.—With *Bonnet*, he was long on terms of the closet intimacy, founded on mutual admiration and esteem.

The first two volumes of the Abbe's dissertations on animal and vegetable physics were given to the world in 1776, which formed a developement of a part of the microscopic observations before brought forwards by him. Four years afterward he compleated two new volumes, which contain his celebrated observations on digestion, generation, and artificial impregnation.

SPALLANZANI was fond of travelling, but always made his tour subservient to the cultivation of natural history. Of his last excursion, in the two Sicilies, he published an interesting account some time before his death. He had the care of the museum of natural history at Pavia, and he enriched it by the valuable collections which his travels afforded him an opportunity of making. His active mind was continually directed to the prosecution of some interesting inquiry; and the results of those investigations he communicated to the world either in distinct works, or in memoirs which have appeared in different scientific collections. He was rather tall, his deportment was noble and stately, and his physiognomy sombre and pensive. He had a large forehead, lively and black eyes, a brown complexion, and a robust constitution. He was universally beloved

loved for the amiable qualities of which he was possessed; and he was the delight of his relations, many of whom he inspired with a taste for his favourite pursuits.

The posthumous volume, of which a translation from the Italian MS. is now before us, consists of three memoirs, which form the commencement of a great work on respiration, intended to examine the nature and phænomena of this function, in the different classes of animals. The subsequent parts, we are informed by M. *Senebier*, have been received by him, and will be published as soon as possible.

In a copious introduction, and in a letter to the translator written a short time before his death, M. SPALLANZANI gives the general plan of his comprehensive experiments, and the principal results which attended them. In prosecuting his researches, he thought it most natural to begin by examining the respiration in the lower animals, and gradually to rise to that of such as possess a more complicated and perfect organization. We must therefore wait for a future volume, to recieve the detail of his experiments on man and the higher orders of animals, although in the present we are in some degree informed of their issue. The first memoir treats on the respiration of snails, whether with or without shells: the second on that of the aquatic testacea, as the viviparous snail, the *Helix vivipara* of Linné, and the duck and swan Muscle, the *Mytilus Anatinus*, and *Cygneus*: the 3d memoir comprizes reflexions and new experiments on the crustacea hitherto examined, and on some other animals of different orders.

It will be unnecessary to give a regular abstract of the substance of these memoirs, because the inferences drawn from the experiments detailed in each of them, as well as those which are said to be deduced in the subsequent parts of the work not yet published, are extremely similar. The general conclusions, to which they lead, are as follow: that oxygen is necessary for the support of every animal; that in all animals the skin and lungs perform the similar function of absorbing oxygen, and throwing out carbonic acid gas; that, in such as have no lungs, the effects of respiration are performed by the skin; that the absorption of oxygen is greater than is necessary to account for the production of carbonic acid gas, which takes place both from the lungs and from the skin; and that this absorption proceeds after the death of the animal, both when the whole and when only particular parts are confined in certain determined portions of air. The experiments were principally made over mercury, and the air afterward examined by the combustion of phosphorus in Grobert's Eudiometer.

As carbonic acid gas was always found in the air which was made the subject of experiment, it might be supposed that its production was entirely owing to a portion of the oxygen, which disappeared, having united with the carbon of the blood: but the Abbé refuted this idea, by finding that carbonic acid gas might be detected where azote or hydrogen was the medium in which the experiments were conducted.—The absorption of oxygen, and the production of carbonic acid gas, continued during the torpid state of certain animals, provided that they were not in a very low temperature; and in most of the experiments which were made by him, he found that a small quantity of the azote disappeared.—The same results, as has been already observed, were obtained in the experiments which were performed on all the classes of animals. Water animals produce a decomposition of the air contained in the water, and die if it be withdrawn: but the effects now mentioned are not, we are informed, confined to living animal matter; the same process being carried on when dead animals, or particular parts of a dead animal, are the subjects of experiment; and though it exists in a diminished degree, the author considers himself justified in concluding that it is a continuation of the same function which was exercised during life. Boiling, he tells us, did not remove this property. He is of opinion that the immense abstraction of oxygen, which thus continually takes place by means of the animal kingdom, cannot be restored by the evolution of this gas from plants exposed to the light of the sun; and he therefore concludes, without however giving more than a mere conjecture on the subject, that animals have a power of restoring to the atmosphere the oxygen gas which they are continually abstracting from it.

That the motion of the heart depends on the action of blood which has undergone certain changes in the lungs, and has thus become possessed of the power of stimulating, is a fact universally admitted: but the author, while he attributes the whole of this effect to the absorption of oxygen, carries his ideas on its operation so far as to consider it, with Girtanner, as the cause of the irritability of the heart, by its union with the muscular fibres of that organ. He does not expressly attribute muscular irritability, throughout the system, to the agency of oxygen, but this doctrine may be naturally inferred from his reasoning on the subject of the heart: which, it is scarcely necessary to say, is completely hypothetical, if not directly contrary to fact.

The industry and abilities of the Abbé, in his examination of the extensive field of inquiry on which he entered, by undertaking

taking to elucidate the phænomena of respiration, are eminently conspicuous: but most of his experiments only support the opinions of former physiologists. Some of his inductions, indeed, possess a claim to novelty; particularly that in which it is stated that dead animal matter, even after having been boiled, has the same property of absorbing oxygen, and throwing out carbonic acid gas, which it possessed during life. Yet this is an inference which does not apparently lead to any useful conclusion respecting the effects of air on the human body, and should (at least in the extent to which the author carries it,) be received with some degree of caution.

Yell.

ART. X. *Tableau de la Grande Bretagne*, &c.; *i. e.* A Picture of Great Britain, Ireland, and the Possessions of the English in the four Quarters of the Globe. 4 vols. 8vo. Paris, 1802. Imported by Dulau and Co. London.

THE same curiosity, which prompts us to explore the different countries of the Continent, excites in foreigners a wish to visit the British Isles. Frenchmen are particularly anxious to make themselves acquainted with the real state of that nation which is their most formidable rival; and those of them who have performed the tour of Great Britain and Ireland are supposed to have collected materials for a publication highly instructive and amusing. To us, their details will appear extremely superficial, and in many instances their mistakes and errors will be very glaring: but it may be proper to recollect that the Englishman in France labours under the same disadvantages as the Frenchman in England; and, though we cannot survey a picture of Great Britain by a foreigner, with the expectation of receiving much instruction, it may be some gratification to contemplate the portrait which, *en passant*, he may take of it. The author of these volumes, whose name is BAERT, according to the advertisement prefixed, passed two years in Great Britain and Ireland, and travelled some thousand miles through the united kingdom. He speaks with gratitude of the flattering reception and hospitality which he experienced in the houses of persons of distinction; and he reckons the three months which he spent in the family of Mr. Bingham, the clergyman of Hemel-Hempstead, in Hertfordshire, among the happiest days of his life. In collecting materials, he seems to have been assiduous; and with respect to all English names in particular, they are, generally speaking, more accurately spelt than they are commonly found in French publications of this kind.

M. BAERT commences with a concise account of our canals, mountains, forests, soil and produce, mines, and mineral waters. In this chapter, he delineates the general aspect of the conntry which it was his object to explore:

'England is an uneven country, interspersed with beautiful groves, and covered with rich pastures, inclosed within live hedges; while a series of smiling hills and charming vallies affords variety and amusement to the traveller. It is crossed by several chains of mountains. The south coast is bordered by calcareous mountains of no great elevation, called *Downs*, which are naked, arid, and produce a very short grass; they spread out towards Wiltshire and Dorsetshire, and are constantly covered with a great number of sheep, producing wool of a good quality. Wales is a great mass of mountains, the most elevated of which is Snowdon, stretching itself into the Irish sea. To the north of the Trent, a long chain of mountains commences, which extend themselves between Lancashire and Yorkshire; and which, with those of Cumberland and the *Cheviot-Hills*, communicate with the mountains of Scotland. The most elevated points of this chain are the Peak in Derbyshire, and Ingleborough in Yorkshire.

'There are no real forests in England; for the spaces which retain this name, as Windsor Forest, Sherwood Forest in Nottinghamshire, and the *New Forest* in Hampshire, now present to view only scattered trees with much heath: but through the whole island, sufficient woods, hedges, and trees, are diffused for the purposes of the inhabitants, since their ordinary fuel is pit-coal.

'Its soil, moistened by frequent showers and continual storms, is very fertile in a great number of districts, and is managed with care in those parts which are under culture: but we continually meet with immense tracts, which, though sometimes possessing a good soil, are allowed to remain in a state of nature, and, being common to every body, no one bestows on them any care. England grows an abundance of all kinds of grain, and supports a prodigious quantity of cattle. It produces pulse, potatoes, cabbages, and turnips, but little fruit, except that which is raised in regular gardens. Grapes do not ripen, and apple-trees succeed only in the south. Cyder is made in some counties.'

This sketch possesses as much accuracy as may be expected from a traveller passing through the country, and enough to afford the foreign reader a general idea of it.

The author takes notice of the division of England into counties, or *shires*; and, commencing his narrative at the *Land's End*, he proceeds through Cornwall (which he unfortunately spells *Cornguailles*), Devonshire, Somersetshire, Wiltshire, &c. and gives short descriptions of the counties, principal towns, &c. in the kingdom. We shall translate the account of Middlesex, and (in part) of London;

'The

'The county of Middlesex, which includes London, and which is bounded by the Thames on the south, sends only eight members to parliament, and is very small: but its vicinity to this immense city renders it very rich and populous. Its roads are lined with country-houses, parks, and gardens, enriched with manure; and the banks of the Thames are extremely chearful and varied. Though in general flat, it has some hills towards Harrow, Hampstead, and Barnet. Towards the west, we see heaths and marshy ground, intersected by some well-cultivated land. It produces much hay, pulse, and corn.

'London, the most populous, *perhaps* * the largest of the cities of Europe, and, without doubt, the most important on account of its commerce and riches, is situated on the northern bank of the Thames, about sixty miles from its mouth. It appears to have owed its origin to a Roman colony. Ruined at different times by the Britons and the Danes, it was rebuilt by Alfred, and became the seat of government. It often experienced the ravages of the plague, which, in 1665, destroyed more than 80,000 persons; and fire having almost entirely consumed it in the following year, it was rebuilt with brick; its streets (which before were narrow, crooked, and darkened by the projection of the upper stories, for the most part consisting of wood,) were enlarged and improved; the air circulated more freely; and the epidemics, formerly so frequent, have not since appeared.

'The length of London from *Tyburn Turnpike*, the most western of its barriers (or turnpikes), to *Mile-End*, the most eastern, is about six miles. Its breadth, at the centre, is scarcely a mile, but double towards its two extremities, viz. towards the Tower and Westminster, on account of the bending of the river; it is even three miles broad, if we take in Southwark, that great suburb on the other side of the bridges. The city is continually enlarging towards the west, and uninterrupted strings of houses join it to the villages, which are only one or two miles from the turnpikes.

'London is divided into two cities, viz. London, commonly called *the city*, sending four members to parliament, and Westminster, which, as well as Southwark, sends two. Of the gates which formerly separated these two cities, one only remains, *Temple-Bar*, which it is in contemplation to demolish. Its preservation to the present day has been owing to an antient ceremony. The citizens shut it when the herald at arms comes to announce the accession of a new king to the throne, and they do not open it till he has pronounced the sovereign's name.

'The streets in the city, except those which lead to St. Paul's and the Exchange, are very narrow, with a mean foot-pavement: but Westminster is distinguished by broad streets, which are well lighted, and have handsome foot pavements. It has also a great number of beautiful squares, the centers of which are, for the most part, covered with turf, planted with trees, adorned with some bad statues, and surrounded with iron railing. The houses, as in general

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* What business has the *perhaps* in this place? Was there ever a doubt entertained of the fact?

throughout all England, are of brick, two stories high, very lightly constructed, and arranged with the greatest uniformity: consisting of a narrow passage fronting the door, a room towards the street, another backwards looking into the court, and sometimes a closet, which constitutes a little wing *. The kitchens are under ground. The houses are more or less large, according to the different quarters in which they are built; and there is little variety but in their dimensions. The stables and coach-houses are put together in numbers, in places called *Mews*, and are concealed among the masses of buildings. There are some houses, moreover, which might be denominated *hotels* (in the French acceptation of the word, and not in the English), but the number is very limited; perhaps, there cannot be reckoned more than thirty.

'The modern streets of London, and of the other cities of England, are on a construction peculiar to this kingdom. The sides are raised on solid arches, at the height of ten or twelve feet; and the interval, which forms the middle of the street, is filled up with rubbish, but contains the common-sewers which carry away the filth, and the wooden pipes by which the water is conducted into every house. The arches support the foot-pavement, which is from four or five feet broad, while the cavities serve as repositories for coals, which are shot into them through apertures made in the pavement, covered with an iron grating. In the best streets, the pavement is separated from the under-ground story by a little court or area of the same width, which is defended by handsome iron railing. The foot-ways are paved with large flat stones, and the middle of the streets with granite-blocks brought from the neighbourhood of Edinburgh and Aberdeen. For some time past, the greater part of the houses have been built on speculation. The land-owners give up the ground for thirty or forty years to an architect, who builds on it; and after this term the ground, with the houses on it, returns to the proprietor. An act of parliament, in 1774, arranged the different edifices in London into seven classes, viz. churches, manufactories, magazines, houses, &c. and regulated the thickness of the different walls.'

It is unnecessary to specify to the English reader the mistakes in this account. We could not anticipate a more exact one from a foreigner hastily surveying the British metropolis; and he may be excused in apprehending that an act of parliament, the purport of which was only to fix the thickness of the *party-wall*, regulated the thickness of all the walls of the London houses.

Short notices are taken of the churches, (among which St. Paul's occupies the chief attention, and its architecture is scrutinized,) and other public edifices, after which the writer returns to general observations.

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* This description certainly applies to great numbers of houses in and about London, but they should be stated as forming only one class.

'The

'The equality and uniformity of the houses, (says he), which announce comfort generally diffused; the cleanliness and decency of the people who crowd the foot-pavements; the great number and beauty of the horses and equipages; the immense quantity and variety of shops, with the articles tastefully arranged; the languid and melancholy air of the inhabitants; the thick vapour rising from the coal fires, which blackens and seems to throw a gloom over every thing; are the circumstances which most attract the stranger on his arrival in London. There every individual appears exclusively occupied with his own affairs, and they rarely meet together except at clubs, at public places, at dinners, or at formal parties. They scarcely ever assemble in private societies. The rich never consider themselves there as at home; it is in the country that they have their establishments; and it is only there that they are expected to live according to their rank. In this immense city, which engulphs such vast wealth, a grand dinner, or a rout given by a foreign minister, are events so remarkable that they are mentioned in all the public papers.'

The nobility, gentry, and opulent citizens of London, who are luxurious in the extreme, who pass their lives in almost one continued round of the most splendid conviviality, and who spend more in sumptuous dinners and entertainments than the citizens of any other town in Europe, will not be able to recognize themselves in this portrait. M. BAERT must have seen very little of London society; for had he been admitted to the tables even of our rich merchants and bankers, such an impression as the above could never have been stamped on his mind. So frequent are dinners on every occasion in the British metropolis, that some persons have been led to remark, in opposition to M. BAERT's statement, that the public business of London seems to be carried on by dinners.

This traveller visits Windsor, Oxford, Blenheim *, Stowe, Norwich, Yarmouth, Cambridge. Birmingham, Colebrook-Dale, Nottingham, Derby, Manchester, Liverpool, Sheffield, Leeds, York, &c. finishing with Cumberland, the lakes of which are thus delineated:

'Its mountains are sufficiently naked and gloomy, though varied in their form, and separated from each other by charming vallies: but those to the west are filled with beautiful lakes, presenting scenes at once the most lovely and the most animated. The lake of Ulswater, which in shape and size much resembles that of Windermere, and the

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* Here he remarks on the heavy style of the architecture of the mansion, and thus translates into French the witty epitaph made on Vanburgh,

"Lie heavy on him, Earth; for he
Laid many a heavy load on thee,"

"O terre! pèse bien sur lui; car il a bien pesé sur toi."

aspects

aspects of which, varied to infinity by the different contours of their banks, render the promenade extremely agreeable, present a series of pictures which change successively from the beautiful to the majestic, from the gay to the sublime, consisting of hills covered with pastures, wood, and habitations; of rocks naked and hideous, wild and picturesque intersected by beautiful and roaring cascades; and of amphitheatres of mountains covered with verdure to their tops, and furrowed by numerous rivulets.'

This is such good painting, that the scenes of Cumberland almost "live in description."

The next chapter treats of the isles of Man, Jersey, Guernsey, Sark, and Alderney, here called Origni: but the statements are very concise.

In the chapter on Scotland, which occupies nearly as much space as that which is assigned to England, and contains accounts of the Highlands, Lowlands, Hebrides, Shetland Isles, &c. some quotations are made from Johnson's Tour, the authenticity of Ossian's poems is maintained, and notice is taken of the pretended faculty of *second-sight*. The island of Staffa is not omitted; and with the description of the Grotto of Fingal, a copper-plate of that curious spot is given. Edinburgh, Leith, Glasgow, and Paisley, are duly represented. The effects of the Union on that country, and its state of amelioration, are also considered:

'Agriculture (observes M. Baert) enjoys advantages in Scotland which it does not possess in England, inasmuch as it pays neither tithes nor poor-rates: but, notwithstanding its rapid progress in the *Lowlands*, and the great use of potatoes, it appears that this part does not produce grain adequate to its consumption; so that importations are made of this article from England and Ireland, which is dearer there than in England. Scotland exports in exchange a great quantity of lean cattle; and this market, opened by the Union, compensates her for the loss which she then sustained with respect to her wool, the foreign exportation of which is prohibited, and the sale confined to England, and the price of which is thus materially lowered. Of all the commercial advantages which Scotland has obtained by the Union, says Smith, the augmentation of the price of cattle is perhaps the greatest, since it has excited the industry of the peasants, multiplied enclosures, and visibly improved agriculture. Before this period, only one quarter of a farm at most was manured; the rest was left fallow, and worked successively in patches. There is much uncultivated land at this time even in the good districts of the *Lowlands*; yet less perhaps than in the good districts of England.'

If the writer concludes, from a general view of the subject, that Scotland can never be an opulent country, he celebrates it as having been rich in learned men, of whom he produces a most respectable catalogue. The chapter concludes with a reflection by *Voltaire* on the unfortunate House of Stuart.

Ireland

Ireland is not dismissed with so much brevity as England and Scotland. Its history, constitution, revenue and expenditure, soil and agriculture, manufactures and commerce, religion and population, character, customs and manners, literature and antiquities, and political situation, form the subdivisions of this chapter. Adverting, in the Appendix, to the Union, the author pronounces it to be the most happy circumstance for Ireland which could have taken place; since it will change the face of the country, insure the happiness of three or four millions of inhabitants, and augment in an incalculable manner the prosperity of the United Kingdom.

The chapter on Gibraltar contains a description of this impregnable rock, and of its celebrated siege, concluding with a short discussion of the importance of this fortress to England:

'The utility of Gibraltar to England, especially since this power has lost the commerce of the Mediterranean (when?), has been much disputed. It occasions Spain to be her enemy, and it is said to have cost the nation 500,000 l. sterling, even during the last war, and 20 millions sterling since her possession of it: thus it has often been a matter of debate whether it ought not to be abandoned: but the minister has always been restrained by the importance attached to it in the opinion of the people.'

A view of Gibraltar, taken on the Spanish side, together with a plan of the rock and fortifications, illustrates the narrative. The volume contains moreover maps of England, Scotland, and Ireland; with a plate of the Giant's Causeway.

The first part of the second volume includes an account of our possessions on the continent of America; of our West India islands; of St. Helena, and our settlements on the coast of Africa; and of our territories in the East Indies;—and the remaining part, occupying three-fourths of the volume, is employed in a delineation of the British Constitution, with a commentary on the system of English law. Blackstone's division of Rights of Persons, Rights of Things, Private Wrongs, and Public Wrongs, is minutely followed. It is unnecessary to add that this is a compilation: but to the foreign reader, this portion of the work may be acceptable, because it is founded on good authorities. We cannot peruse it without a smile at seeing our party and cant-terms blended with French expressions; as *Whig and Tory; scot and lot; pocket-sheriff; headsboroughs* (for head-boroughs), &c.: but we should deem it a waste of time to comment on little errors.

Volume III. treats of the established religion in England, and of the different sects;—of the Court, ranks and dignities, including

including an account of the Royal Family, and of individuals most distinguished in Parliament and in the Administration; of the Forces; Finances; Taxes; Treasury and Exchequer; and of Agriculture, Mines, and Manufactures.

The chapter on our religion conveys to foreigners the following *curious* information:

'Besides Sunday, the English have other holy days; on which the Parliament has preserved the custom of not assembling. A sermon is preached before it on the anniversary of the martyrdom of Charles I.; while, from motives of derision as barbarous as disgusting, some fanatical presbyterians celebrate this event by eating a calf's-head.'

Thus the laugh at the poor presbyterians is gravely converted by the French traveller into a matter of fact: not, however, from any enmity to the sectaries; for soon afterward he gives a description of the clergy, with which they will be as little pleased as the presbyterians with the calf's-head anecdote:

'There are few Atheists in England, but many Deists, *even among the clergy;* who, in general, are very tolerant, both from principle and habit, being surrounded with a multitude of sects who live on peaceable terms with each other. *They are nevertheless given to superstition;* indeed this is the character of the whole nation to a degree which is truly astonishing, if we consider the knowlege which it enjoys. This, however, is owing to their gloomy character; to their frequent perusal of the bible, and of *romances*; and to the prejudice, fortified by law, which prohibits all kinds of diversions on a Sunday, and leaves them no other means of filling up the leisure time which on that day passes heavily away, than by walking, drinking, and relating stories, especially of ghosts; for they believe much in apparitions and witches, and are delighted with the tales of them. The Government, far from attempting to turn the people from these superstitious and romantic ideas, by the introduction of innocent pleasures, such as plays and dancing, determined during the last year to revive, by proclamation, the law which prohibits them on a Sunday, and which makes it criminal to play on that day at cards and dice, even in private houses.'

The Appendix takes notice of the idea suggested in Parliament, of passing a bill to stop the circulation of newspapers on a Sunday. Foreigners, protestants as well as catholics, are surprised at our strict mode of oberving the Lord's day. They make it a festival, and do not regard it as dishonoured or profaned by introducing innocent pleasures as supplements to public devotion. Our opposite practice impresses them with a notion of our being extremely superstitious; and if we are superstitious, they take it for granted that we must believe in witches, ghosts, and hobgoblins.

In the list of celebrated persons in the British Parliament, Messrs. Pitt and Fox * occupy the first place. The latter is pronounced to be the greatest orator that has ever appeared in the House of Commons: Mr. Pitt and Mr. Sheridan are allowed to be more brilliant and flowery: but no one, it is asserted, ever displayed more strength and expansion of mind, more reason and warmth, more energy and impetuosity, than Mr. Fox. He is justly represented as open, courteous, and obliging; as knowing no enemy except on the benches, and as quitting the most stormy sessions of parliament with kind dispositions even towards his rivals. His love of play is noticed as a shade in his character; and Mrs. Fox (here called *mistress Harmsted*) is described as *femme fort laide, mais qui le captive par son esprit.*

Under the head of the British Navy, a complete list (up to January 1799) is given of all our ships of war; in which the name, rate, and number of guns of each ship are specified; and every vessel taken from the enemy is printed in italics, and marked with the initial of the power from which it has been captured. It cannot be gratifying to the French to see the number of F's subjoined to the names of ships in this catalogue.

The account of our manufactories introduces, under the head of Potteries, the name of Wedgwood (spelt here *Wedjewood*) with great respect, as having carried the art of making earthen ware to an astonishing degree of perfection; both in the beauty of its form, by imitating the Etruscan vases of Sir William Hamilton, and in the hardness, firmness, and regular consistence of the material.

The article on the press is very short and imperfect. The author appears to be totally ignorant of our modern improvements in typography, since he makes no mention of any other British printers than Baskerville and Foulis.

In the 4th vol. the subjects are Commerce and Commercial Companies; the Bank of England; Coin; Population; Character, Customs and Manners; the Theatre, and the state of the Sciences, Literature, and the Fine Arts. M. BAERT has collected a multitude of tables relative to our Imports and Exports, has endeavoured to put his countrymen in possession of every interesting particular relative to British Commerce, and expresses his wish that a commercial intercourse subsisted between France and England.

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* Of whom, portraits are given in two copperplates.

On

On the subject of Population, the calculations of Dr. Price are represented as those of a person who saw every thing in gloomy colours; but this writer, though he exceeds the Dr's. estimate, stills falls short of the fact, stating the population of England and Wales at only 6,500,000.

The chapter on the customs and manners of the English cannot be perused in this country without a smile. M. BAERT endeavours to give the foreign reader an idea of all our usages at the table, even to our *toasts;* and we are represented as fond of cock-fighting and boxing (a copper-plate is subjoined, depicting the combat between Humphreys and Mendoza), and are reprobated for our propensity to duelling and suicide.

Fewer errors will not be found in the sketch given of our literature, than in that which is exhibited of our customs and manners. Shakspeare meets with the same treatment from M. BAERT as from other French writers. Among our modern authors, Dr. Johnson is highly praised; and *the World*, *the Adventurer*, and *the Mirrour*, are assigned to him as well as *the Rambler* and *the Idler*. He is pronounced to be the best English writer that the last age produced.

After having gone through the various details which constitute this compilation, the writer endeavours to give a general view of the British people:

'Such, (says he,) is this nation so justly celebrated; which, with a marked character belonging to every individual, unites qualities the most opposite and contrasts the most striking, of haughtiness and servility, of nobleness and venality, of hard-heartedness and humanity, of surliness and of bashfulness: of reason, judgment, and information, and of religious follies and prejudices of all kinds: of the pride of liberty, with pressing for the navy, and perpetual engagements in the army: of a prodigality almost always ridiculous, and an economy often sordid: of great exterior ostentation, with niggardliness in domestic life:—the women discreet, timid, and modest; the men often bold, debauched, and drunken, making husbands who love their wives, and yet treat them with contempt: displaying the appearance of the most perfect equality, while all rank and precedence are marked and rigorously disputed even in public places: where an air of ease is generally diffused, the appearance of misery scarcely ever striking the eye, or wounding the heart, and yet their countenances carry the marks of sadness and melancholy: where the liberty of the press, designed to protect the citizens, is become their scourge:—a people active and courageous in their enterprizes, but cold and insensible in their pleasures; who talk incessantly of sentiment and domestic happiness, and yet are continually seeking dissipation and pleasure, abandoning their children in their youth, and casting off their relations in their old age: who, with energy, reflection, and love of independence, blindly adopt in public affairs the mode of thinking prescribed by the head

head of a party: who exclusively love their own country, its customs, and manner of living and society, and yet from which many individuals voluntarily banish themselves for life; who, from a restlessness, avidity, and ambition, neither love nor desire any thing but war; and who nevertheless ascribe the prosperity of their country to commerce, which is essentially founded in peace.'

'Such,' continues this author, 'is the English nation.'—We venture to say, such is *not* the English nation. Some of the features are tolerably exact: but the whole is a caricature. This and other extracts, however, we have made less for the purpose of criticizing them than for that of amusing the reader; for were we to notice all the mistakes in this work, we must have extended the article to a tedious length.

Moy.

ART. XI. *Les Liliacées*, &c.; *i.e.* The Liliaceous Plants. By P. J. REDOUTÉ, Painter to the National Museum of Natural History. Large Folio. Paris. 1802. Imported by De Boffe. Price 2l. 2s. each Number.

PLANTS of the Lily tribe seem to have been peculiarly destined to enliven their native abodes, and to decorate our gardens, by the singular elegance of their forms and the varied gaiety of their attire. In their very character and habits, they betray an undefined gracefulness, which has in all ages attracted the regards of taste and sensibility: while the votaries of Flora have struggled in vain to embalm the passing glories of the Tulip, and have lamented with a sigh that Amaryllis was born to bloom and perish.

Though a coloured engraving of a plant must ever fall short of the original, it may often be substituted with advantage in the room of a dried specimen, which so imperfectly represents its living state. M. REDOUTÉ even flatters himself that he can catch a perfect transcript, and retain on his splendid pages those brilliant hues and delicate tints which were formerly deemed inimitable or evanescent. This we cannot positively assert: but we feel no hesitation in declaring that his plates, to the best of our knowlege, are nearly unrivalled in excellence; and that, if every vegetable species were exhibited in the same masterly style, the study of botany would be converted into an easy and elegant amusement.

The seven numbers (*livraisons*) now on our table include figures and descriptions of *Dianella ensifolia*, *Lachenalia tricolor*, *Hemerocallis Japonica*, *Amaryllis formosissima*, *Tigridia pavonia*, *Agapanthus umbellatus*, *Lilium pomponium*, *Pancratium maritimum*, *Amaryllis reginæ*, *Amaryllis vittata*, *Gladiolus Merianus*, *Antholiza Cimonia*, *Helonias bullata*, *Hyacinthus amethystinus*,

Hemerocallis flava, Hemerocallis fulva, Narcissus tazetta, Iris Suziana, Cypripedium calceolus, Cypripedium flavescens, Albuca minor, Lachenalia pallida, Iris Florentina, Narcissus bulbocodium, Merendera bulbocodium, Methonica superba, Crinum erubescens, Ferraria undulata, Iris sisyrinchium, Ixia filiformis, Amaryllis atamasco, Amaryllis equestris, Amaryllis Sarniensis, Ixia longiflora, Gladiolus tristis, Gladiolus cuspidatus, Tulipa Clusiana, Tulipa Celsiana, Hæmanthus coccineus, Alstrœmeria iigta, Galaxia ixiæflora, and *Vieusseuxia glaucopis.* This list is given according to the order of publication: but, as the work is executed on loose and unnumbered sheets, it may, when completed, be made up in conformity to any scientific arrangement.

The author's professional situation enabled him to take his drawings from existing specimens, and, in almost every instance, to give separate delineations of the parts of fructification. Here we need scarcely remind our readers that hothouse plants frequently assume a physiognomy different from that which they exhibit in their native habitations; and on this account, we are disposed to make considerable allowances for an effeminate air which the pencil has here imparted to some of the exotic species.

Most of the descriptions are accurate and copious; and those minute yet permanent distinctions, on which specific differences are frequently founded, are detailed with correct discrimination. The title and magnificence of the work had led us to expect also some introductory remarks on the term *Liliaceous*, a sketch of the genera which are comprehended under that denomination, more ample lists of synonyms, and a greater richness and diversity of critical and economical observations.

With respect to innovations on the established nomenclature, the author may usually plead the sanction of *Jussieu, Lamarck*, or some distinguished naturalist. *Gloriosa superba* has been changed to *Methonica superba*, in compliance with the Linnéan maxim that no generic appellation should be an adjective; and the *Bulbocodium vernum* of *Desfontaines* has been designed *Merendera bulbocodium*, in consequence of *Ramond*'s recent and ingenious account of this beautiful and singular plant. Some of our English botanists will, doubtless, peruse with eagerness the description of *Gladiolus cuspidatus:* but we select for translation an article of still greater novelty:

'TULIPA CELSIANA.

'FAMILY of LILIES. JUSS. HEXANDRIA MONOGYNIA. LIN.

'*Tulipa Celsiana.* T. caule unifloro glabro, flore erecto (luteo), foliis lanceolato-linearibus canaliculatis, petalis glabris.

'CELSIAN

' Celsian Tulip.

' Description.

' This species has a great affinity to the mountain Tulip, yet obviously differs from it in certain constant characters. It is uniformly only half the size of the latter; its leaves are narrower, and more decidedly channelled. Its flower is upright, and perfectly smooth. Even the roots present marked differences in their modes of growth. The new bulbs of the mountain Tulip proceed from the sides of the old one; whereas, in the Celsian, the new bulb originates in the lower part of the old, and is generally separated from it by a sort of elongated pedicellum. These bulbs are rounded, of the size of a hazel-nut, covered with a brown coat which is glossy on both sides, is somewhat serrated at top, and surrounds the base of the stem.

' From this root springs a single, herbaceous, cylindrical, smooth, upright stalk, about one decimetre in height, a little reddish, naked towards the top, and bearing at its base three or four wide-spread lanceo-linear, pointed, spout-bent leaves, slightly reddish at the edges, quite smooth, and somewhat exceeding the length of the stalk. The sprouting of the plant is first indicated by a linear leaf; which issues, in an almost vertical direction, from the bulb, and anticipates the appearance of the stem.

' The latter is surmounted by a solitary flower, yellow, upright, slightly fragrant, and smaller than that of the mountain Tulip. The petals are oblong, acute, inclined to separate expansion, from three to four centimetres long, and perfectly smooth. The upper surface of all the petals is pure yellow: but the three outer have their under surfaces of an orange red, and the three inner present the same shading only at their tops.

' The stamens are upright, from ten to fifteen millimetres in length. The three which are placed before the three outer petals are rather shorter than the others, and are the first to shed their pollen. The filaments are yellow and awl-shaped; the anthers upright, oblong, and of the same colour with the filaments.

' The pistil consists of an ovary above the corolla. It is greenish, with three sides and three angles, crowned by three thick, short, yellowish stigmata, slightly furrowed at top.

' I have never seen the ripe fruit of this liliaceous plant.

' History.

' This plant has been cultivated for some years in the rich garden of Cit. *Cels*, where it blossoms in spring. The flower continues expanded for some days.

' The native country of this species of Tulip is unknown. Cit. *Cels* received it from Harlem, under the name of Persian Tulip. This circumstance, combined with certain specific analogies observable in the genus, may justify the presumption of its eastern origin.

' Observations.

' Although specific designations are usually destined to represent distinctive characters, there are some kinds which seem to be parti-

cularly consecrated to the gratitude of naturalists, and bear the names of those botanists who have most successfully unfolded their history. Under the impression of this sentiment, I have bestowed on a new Tulip the name of that practical botanist, whose garden, ever open to the lovers of Natural History, contributes to enlarge the empire of that science; and who himself extends its boundaries by his acute and various observations on the growth and philosophy of plants.'

It may be proper to note that the names of M. REDOUTÉ's engravers are *Tassaert*, *Langlois* (V. and C.) *Lemercier*, *de Gouy*, and Mlle *Chaillou*.

We are happy to learn, from a few handsome lines prefixed to the 5th No. and addressed to the celebrated *Chaptal*, that public encouragement has animated the author in the prosecution of his plan. Indeed, when we reflect that he is the sole proprietor of a publication which emulates the costly productions of royal munificence, we cannot too forcibly recommend his undertaking to the patronage of all who are able and willing to promote science and the imitative arts.

Muir.

ART. XII. *Traité d'Economie Politique*, &c.; *i. e.* A Treatise on Political Economy, or a plain Account of the Manner in which Riches are acquired, circulated, and expended. By JOHN BAPTIST SAY, Member of the Tribunate. 2 Vols. 8vo. Paris. 1803. Imported by De Boffe. Price 15s. sewed.

THE branch of knowlege denominated public economy had attracted attention, and been diligently investigated, previously to the time of Dr. Adam Smith: but it is allowed that he found it in its infancy, and that his exertions brought it at once to maturity. Never did a science owe so much to one man; extensive and complicated as the subject is, he almost exhausted it, and left few points which need elucidation, or errors which require correction. Yet his labours are not exempt from human imperfections. If minds of considerable native strengh, and habituated to abstract inquiries, become, by a perusal of his work, masters of the topics on which it treats; persons of a different character lay it aside before they have advanced far in it, or, if their perseverance exceeds their comprehension, their resolution goes unrewarded. This failure and its consequences are not wholly to be ascribed to the abstruseness of the points discussed, but are imputable in a great degree to faults in the performance itself. If it everywhere discloses important principles, indubitable facts, sound reasoning, and apt illustrations; still, if we take the whole together, we perceive that the excellent matter presented to us has not been properly arranged, that much which is extrane-

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ous is introduced, and that subjects distinct in their nature are not kept separate.

Under these circumstances, though we have all the information presented to us, yet, before we can treasure it in our minds, we must take the trouble of sorting and methodizing its different heads: but it is the object of M. SAY's publication to furnish this task ready accomplished to our hands. It has been the aim of the author to give a connected systematic view of the discoveries, doctrines, and illustrations of our illustrious countryman, to clear up the few points which he has left obscure, to rectify the few slight mistakes into which he fell, and to render the whole easy of comprehension to the generality of readers; and, in our judgment, he possesses claims to commendation as well for the design as for the manner in which he has executed it. We do not deem his method liable to many exceptions: but, as his province did not extend beyond that of exhibiting to more advantage what was already known, the style as well as the arrangement was intitled to attention; and we think that he should have spared no pains in order to have endowed it with the advantages of conciseness and perspicuity.

In a preliminary discourse, the author gives a brief but accurate sketch of the origin and progress of this science. He observes that, till a late period, mankind had been unacquainted with this branch of knowlege. The Economics of Xenophon treat only of domestic economy; while his discourse on the revenues of Athens serves merely to shew how indistinct were the notions of the antients. He considers the ignorance prevalent in this department as strongly instanced in the conduct of Henry IV. of France; who, though an enlightened and patriotic prince, was wont to bestow on his favourites and mistresses, as rewards which cost him nothing, the right of subjecting articles of commerce to a thousand little charges. *Sully*'s notions of the matter were vague, and rested on no principles; and *Vauban*, (says the author,) a philosopher in camps, and a soldier who loved peace, in the plans by which he proposed to raise France from the impoverished state into which the vain glory of Louis XIV. had plunged her, shewed only his patriotism and his moral worth, while he proved himself to have been an utter stranger to the sources whence a nation must draw its wealth.

M. SAY is of opinion that *Montesquieu*, in political economy as in legislation, disseminated a number of brilliant errors: but he seems disposed to allow to him the honour of having been the master of the English writers; who, he also admits, are said to have been the instructors of the French. If *Montesquieu* did impart instruction to us on this head, he can

scarcely be said to have made compensation for that which he derived from our political writers on the subject of government.

About the middle of the last century, appeared Dr. *Quesnay*, whose notions attracted general attention, and procured a number of followers. The zeal of the disciples for their master, and the estimation in which they held his opinions, occasioned them to be denominated a sect, the famed sect of the Economists. The present author allows to this school the praise of proclaiming some important truths, with that of directing the attention to objects of public utility; and the good effects of these services remain, while the mischiefs arising from their demerits have disappeared, and are forgotten. One thing, with respect to the economists, (he says) cannot be denied, and it intitles them to the gratitude and esteem of mankind; their labours have been favourable to strict morality, and to the rights of men in disposing of their persons and goods. All the respectable writers who appeared in France, between 1760 and 1780, were evidently swayed by the maxims of this celebrated sect: but *Turgot* was rather their friend and patron than their disciple; he saw their errors, and held opinions peculiar to himself.

The author thus announces the appearance of the work of our great countryman:

'In 1776, Adam Smith, an élève of that Scotch school which produced so many literati, historians, philosophers, and learned men of the first order, presented to the public his "Inquiry into the nature and causes of the Wealth of Nations." When this performance was read, it was perceived that there was no political economy before Dr. Smith. The writings of the economists were no doubt of use to him, as well as the conversation which he had with estimable and learned Frenchmen in his several visits to Paris: but between the doctrines of that sect and his own, there exists as great a difference as that which separates the system of Tycho Brahe from the philosophy of Newton. Many of the facts which occur in his treatise were before known: but he first pointed out their connection, and traced them to the laws of nature. He has not only confirmed truths, but has set a mark on errors. His work is a series of demonstrations, which have elevated many propositions to the rank of first principles, and have plunged a number of others into that gulph in which false systems, vague ideas, and extravagant conceits struggle for an instant, before they disappear for ever.'

M. Say then vindicates Dr. Smith from the charge of having borrowed from Stewart without acknowleging his obligations. We have sometimes heard this accusation preferred, but never have known it supported in any other way than by general assertions. Stewart's object was to persuade the public that

that the riches of a nation depend on the quantity of its exports; and that of the partisans of *Quesnay*, that they consist solely of the produce of agriculture. There is good in each system, but they are both fundamentally false, and Smith has demonstrated them to be so. The system of Stewart was not invented by him, but had been long known before he adopted it; and Dr. Smith, therefore, in refuting it, was not required to refer to him in particular.

As it is the sole object of the publication before us to exhibit the theory of Dr. Smith in a new and improved form, it will not be expected that we should do more than announce its grand divisions, and note some of those passages in which its principles are neatly stated, happily elucidated, or strikingly illustrated. The work is divided into three parts, the first of which treats of produce, the second of circulation, and the third of consumption, which M. SAY distinguishes from expenditure.

The author very ingeniously applies the principle of the division of labour to the practices of forestalling and engrossing; and we could wish that declaimers against them would peruse his observations. They would then see that they must either abate their clamours, or new-model a disquisition which has been generally admired, and from which Dr. Smith obtained so much praise. He also well illustrates the superior interest which a state has in a capital invested in land, by remarking that no trace remains of many among the most flourishing of the Hanseatic towns; while Lombardy and Flanders, in spite of the wars of which they have often been the theatre, rank among the best cultivated and most populous countries in Europe.

A well known doctrine of Dr. Smith, which runs directly counter to former notions, is thus stated by M. SAY. When a nation has a surplus of produce of one kind, the way to dispose of it is to create that of another kind. It is when no object of exchange can be furnished at home, that exportation becomes profitable; and also when it procures commodities which grow solely in another climate: but the most profitable sales are those which a nation makes to itself, because they can only take place by the production of two values at home; that which is sold, and that which is bought. Exportation is then merely supplemental to interior consumption, and less beneficial than it.

In opposition to the opinions of the ablest writers, and to the most eloquent and forcible reasoning that is any where to be found, the author contends that servile is more efficient than free labour; and that the service of the slave, impelled

by the whip, exceeds that of the volunteer workman. Not only have publicists of the first order maintained an opposite doctrine, but powerful and enlightened sovereigns have been desirous of acting on other principles. Czars of Russia and kings of Poland wished to abolish slavery throughout their dominions. Was Europe in a higher state of culture, was greater labour bestowed on tillage, when serfs and villains were principally engaged in the business of husbandry? M. SAY does not sufficiently distinguish between the abstract question and the particular case. He considers the aversion of planters to the emancipation of their slaves as an unsurmountable argument against all the conclusions of the best writers: but we were astonished to find so able a person hazard so weak an observation. Was there ever a practice that once generally prevailed in husbandry, or trade, in defence of which the same argument might not be urged? Have not those who have been long accustomed to usages the most incommodious, and customs the most preposterous, shewn a bigotted attachment to them, and a decided unwillingness to abolish them? It was with much difficulty that, at no great distance of time from the present, the people of some districts in Ireland could be induced to abandon the practice of attaching the plough to the tails of the horses: but will it be contended that this barbarous mode was superior to that of putting the animals in harness?

The writer's system of colonization is not, in the abstract, liable to objection; and, could the tranquillity of Europe be restored, and established on a permanent base, it would be as eligible as it is reasonable: but a state which should act on it, in the present circumstances of the world, would be guilty of gigantic folly, and expose itself to ridicule by its magnanimity.

Among many excellent observations, which might have been more forcibly urged and farther extended, we should recommend the following to declaimers against farmers and monopolists. The author is treating of the trade in corn:

'Of all the articles of home produce, none is so little capable of being monopolized as corn. A monopoly of this kind requires an immense capital, for it is only supposed to take place in years of scarcity; and it is an article of most diffusive growth, which covers a vast space, and which is in the hands of a great number of people, so that it cannot be monopolized but by acts extending almost to all the points of a territory, and by the intervention of a multitude of agents. It is also one of the most bulky articles, and consequently one of those which is conveyed and stored at the most expence; one which requires to be kept with great care, and that is liable to very important alterations prejudicial to the owner, which are the more serious in proportion as the quantity on which he speculates is greater. If we

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are to regard the clamours always prevalent in bad years, we should believe that every neighbourhood had its monopolist; while the above representation clearly shews that they must be very rare beings; or rather that it is impossible that they should exist to the extent supposed. The prepossessions against dealers in corn are of great public detriment, as they occasion the trade to be shunned by respectable persons, and to be thrown into the hands of low people.'

The manufacture of the Gobelins at Paris, it is well known, is conducted by the government; and it is carried on, as might be expected, at a considerable loss. The author remarks that it may be said that this sacrifice is necessary, because the undertaking furnishes articles proper for presents to be made by the rulers of the state, and such as are required to adorn its palaces: but, he adds, if a nation be better governed in consequence of this sumptuous liberality and internal magnificence, it needs not add to this expence the loss incurred by speculations ill conducted. Let it fairly buy what it thinks proper to give; and it will procure better articles, at a less expence, because individuals manufacture at a cheaper rate than governments.

M. Say is of opinion that government can best serve commerce by leaving it to its own course, and assisting its operations by canals, roads, and public buildings; and instead of keeping the soldiery idle in garrisons in time of peace, he would have them employed on useful public works. The statesman who should introduce this change would, in his judgment, acquire first-rate glory, and the benedictions of mankind.

The discussion, which here occurs, of the important question whether the prosperity of one country is injurious to that of another, is perspicuous, convincing, and worthy of an admirer and disciple of Dr. Smith. We wish that M. Say could diffuse among his countrymen the same liberal and well-founded sentiments; and that he could render his government satisfied of their justice and soundness. Could he persuade it to adopt them, and act up to them, he also would intitle himself to the gratitude of millions on each side of the water.

'Does England,' he says, 'possess a number of precious things; why should this hinder us from obtaining similar treasures? If England has more cotton, is it not in our power to secure more silk? Spain, in proportion to its size and population, boasts more specie than any country in Europe, and yet it is considered as one of the most indigent. It is the interest of a state to have a rich neighbour, which proves a fairer and larger dealer in its surplus articles. It was this conviction that, in 1802, determined the United States of North America to civilize the Creeks. It wished to make them owners of produce, in order that it might have dealings with them, and that the one might have the power to buy that which the other had the desire to sell.'

The writer intimates that this country, while it holds out profitable relations to France, is likely to supplant it in its commerce with other nations, and to deprive it of advantages which it would otherwise enjoy. We shall not vindicate ourselves, because the author does not impute any blame to us on this account: but, had he done so, he might have been answered by observations furnished by himself. He asks; 'are we to arm because Britain may possess herself of some of our foreign markets? I do not believe that there is any one country, the traffic with which yields profit sufficient to pay the interest of the principal swallowed by a war, without adverting to all the ills which follow in its train.' He then enters into a calculation in support of this assertion; and he adds that apprehensions of being thus outdone by its rival are chimerical, which he very satisfactorily proves.

M. *Garnier* had pointed out, * in his notes, the error of Dr. Smith with regard to the head of productive labour; which, however, he was by no means the first to detect. The author before us traces the mistake to its source, and sets the matter in a very clear light. He observes that Dr. Smith had combated the position of the economists, that the raw commodity alone constituted riches; and that he made a large stride in the science, when he advanced that the first material, with the labour superadded, formed riches. As he raised value (an abstract thing,) to the rank of wealth, how came he to estimate it as nothing when it exists alone, not inherent in any material substance? He considered value much at large, deducting from it the gross material, which was its substratum; he ascertained the causes which determine value; and he regarded it as the measure the most sure and least variable of all others: yet he allowed only exchangeable value, capable of being preserved, to constitute riches; while he denied that distinction to value equally unchangeable, but which is consumed the moment it is created:—as the advice of a physician, the decree of a judge, the argument of an advocate, the performance of a musician, or the part of an actor. These contributions satisfy wants, and society could not exist without some of them at least. Are not the fruits of these labours real? They are so real that they are procured only at the price of that which the same person honours with the name of riches; and in consequence of repeated exchanges in the same way, the possessors of this immaterial value, those engaged in this labour termed unproductive, realize large fortunes. The author appears to us to concede too much, when, without qualification, he admits that

* See Rev. Vol. xxxix. N. S. p. 509.

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these persons do not swell the capital of a country. We cannot see why a skilful physician, an able judge, an upright magistrate, and the class which contributes to amusement, have not value in the inventory of a society, as well as stock, furniture, food, and clothing. Without them, the palpable capital would never have accumulated; remove them, and it will dissipate with incredible rapidity.—He observes that professional skill, like other produce, is formed by a consumption of toil, by the application of labour: that it has the same origin, and exhibits the same characteristics, which distinguish other kinds of wealth; and that consequently it is, on the principles introduced and established by Dr. Smith, itself wealth.

In his second book, M. Say considers the subject of money. Sir James Stewart had observed that an account of the tricks played with the current coin by different governments, in order to serve temporary purposes, would fill a large volume: which certainly would have proved an instructive one, if accompanied with a statement of the reasons which rendered the measure ineffectual as well as unjust, and of the ill consequences which resulted from it. The disquisition before us is an attempt to effect this purpose, and a successful one as far as it goes; the plan of the work not allowing the author to enter into it much at large.

Independently of the considerations which shew that money is neither *a sign* nor *a measure*, the original language used with respect to it, and which he would wish to see revived, refutes those notions. Originally, the precious metals passed by weight, and were described by it; and M. Say conceives that, if it were now designated in the same way, if in the operations of commerce the weight of the metal and its degree of alloy were expressed, the basis on which false ideas have been built would be withdrawn, the possibility of fraudulent practices removed, and trading transactions rendered more simple and easy. Were money *a sign*, he says, its value would be arbitrary, and sovereigns might raise or lower it *ad libitum*: but their inability to effect this, in every instance in which it has been attempted, shews that the value of the article, like that of any other produce, is of a positive nature, determined by the established order of things. Having described the variations which the value of the precious metals have undergone, and those which they bear at the same time in different countries, he asks; can that be *a measure* which varies its length at different periods, and in different places? Money then, he says, is an article of merchandise, the value of which is regulated in each contract which is made by the agreement of the parties; and

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it cannot be *a measure*, the first and essential quality of which is to be invariable.

If the precious metals have severally no invariable value, so as to constitute them fit measures of all other values, there can be no such thing as a fixed relative value between them. This is clear *à priori*, and the fact corresponds with it. Gold has in modern times advanced in its relative value to silver, above what it was among the antients, in the proportion of 3 to 4. Silver is now to gold in the proportion of about 15 to 1, while antiquity represents it as being in that of about $11\frac{1}{4}$ to 1. In France, previously to the gold coinage in 1785, a louis was worth 24 livres 8 or 10 sous: and therefore, when the agreement was for so much livres, the payment was never made in gold, because the consequence would have been that the buyer would have paid 8 or 10 sous too much in every 24 livres. In that coinage, the balance was restored by subtracting part of its former weight from the livre.—It is also stated by M. Say that, in England, in 1728, the natural course of exchange settled the value of a guinea in silver at 21 shillings; that is, in the proportion of $15\frac{2}{10}$ to 1. An act of parliament was passed, fixing the proportion between the metals at the then actual rate: but this proceeding arose from ignorance of the variable relative value of these metals, and time soon discovered the gross error into which the legislature had fallen. The demand for silver augmented; a taste for plate diffused itself; and the trade to the East undergoing a most rapid increase, silver rose in value, and the proportion between it and gold became as about $14\frac{1}{2}$ to 1. In commerce, an ounce of gold sells for $14\frac{1}{2}$ ounces of silver. If contracts made for pounds sterling are paid in silver, they must be discharged at the rate of $15\frac{2}{10}$; while in gold $14\frac{1}{2}$ will go as far; and hence the payments are made in gold. A difference of about 8d. in the pound sterling thus arises; and when a new silver coinage is issued, it is bought up for the sake of this profit, and melted down again. This is also the cause of worn out silver coin, which balances more nearly with that of the gold, being seen in circulation. Surely this anomaly, in a country so dependent on its commerce, ought not to be suffered to remain.—The interests of the public, it is here observed, require that an ounce of gold and an ounce of silver ought to be left to find their different values in the exchanges in which they are used; and it is idle to attempt to fix the value of that which is in itself liable to momentary variations. Persons who are engaged in a traffic in precious metals, or in trades connected with them, are always comparing the intrinsic with the current value of money;

and

and when these do not correspond, they convert the difference into a profit for themselves. This circumstance renders it necessary that those who watch over the interests of the public should take care that the current value should be, as nearly as possible, the same with the real value of money.

In the following passage, prejudices which have infected all the French publicists give way, and the spirit of Dr. Smith's school prevails:

'The English (says the author) sell us certain commodities 25 per cent. cheaper than they can be obtained from any other nation; and they do not lose by the traffic, because they can fabricate them at a rate lower by that sum, while we gain by the economy which prevails in their manufactures. This cheapness, occasioned by their superior contrivances, is also the cause of numbers of our fellow-citizens sharing in enjoyments which would otherwise be out of their reach.—It were to be desired, no doubt, that we had capital and industry sufficient to produce these articles at home; since thus we should gain a profit and salaries which we do not obtain at present: but the foreign supply occasions us no loss, nor does it either obstruct or confine our industry; it is a want of capital which produces this effect.'

How different is this fair admission from the miserable declamations of some late political writers, who represent the importation of British goods as robbing France, as paralizing its industry, and strengthening its rival! whereas, as the author justly observes, the sole effect of this traffic is to supply the country, at a low price, with commodities which it must procure elsewhere at a higher rate.

In treating on the subject of revenues, M. Say agitates the famous question of literary property, and is bold enough to give a decided opinion in favour of the claims of authors and their assigns to copy-right. On this point he thus expresses himself: 'I regard the thoughts contained in a book as its substantial part. Consequently, the printer who multiplies copies of a work, of which the original substance has not been assigned to him, is in the same predicament with him who steals the gold of which he constructs vases, according to a pattern which he has bought. The fruit of genius is the property of him who produces it, by that law which gives to a man a property in his own productions.' We have in this country an act of parliament, which vests in an author and his assigns, for a certain term, the right for which the author here contends: but, since the commencement of this reign, it became a matter of dispute whether this statute created a right, or was declaratory, and restrictive of an existing one founded in natural justice. Had M. Say been acquainted with these discussions, in which most acute

acute and enlightened reasoners took a part, we apprehend that he would have expressed himself less confidently on the subject.

The author has given a very interesting chapter on the independence and superior comforts derived by the moderns from the spirit of enterprize fostered among them in commerce, manufactures, and arts. Loans, he observes, in the middle ages were principally advanced to those whose affairs were in a deranged state; and the prejudice against taking interest for them was therefore, at that time, less unreasonable than at present, when they frequently proved more advantageous to the borrower than the lender. He condemns laws made to regulate rates of interest, and is surprised that Dr. Smith should be their defender, when all the principles of his work militate against such enactments. The fair limit of interest, he says, arises from the proportion which subsists between those who lend and those who borrow; and, like every other commercial concern, it ought to be left to find its own level. Laws, bearing hard on insolvent debtors, have been considered as unfavourable to borrowers: but this idea he regards as a mistake, because such laws dispose monied men more readily to lend, and make them contented with lower interest.

In the last division of this work, which treats of the expenditure or consumption of riches, M. Say observes that, as there is no such thing as an absolute creation, (that is, a creation of the original substance,) but as produce, in the sense in which he has used it, is a creation of utility (a creation of value), so consumption is not an absolute distinction, but a distinction of utility or of value. Consumption is either reproductive or unproductive; in the former case, it gives rise to gain; in the latter, to enjoyment.—He thinks that much of the misery, which exists in the world, arises from ill-judged expenditure, or from not employing the means possessed on proper objects. 'I know (he says) villages which labour under a constant want of water, and yet expend on one day which they celebrate as a feast more money than it would cost them to bring water to their doors, and to construct a public fountain. They prefer to get drunk one day in twelve months, in honour of their patron saint, and drink brackish water, brought from the distance of a quarter of a league, all the rest of the year.'

The strange maxim so much maintained by the economists, that consumption or expenditure enriches a nation, is here placed by the side of Dr. Smith's doctrine, by which means its absurdity is abundantly manifested. The sophisms with which the common sense of mankind has been insulted, in regard to expenditure, loans, debt, and taxes, are also satisfactorily exposed;

posed; and it is clearly shewn that societies are affected by these measures in the same way with individuals.

The proposition that capital can alone call forth and support industry leads to a number of very important conclusions in political economy. By means of this postulatum, it is proved that he who annually saves a part of his income is a greater friend to society, and to the poor, than he who dissipates the whole, or who intrenches on his capital. The author thus illustrates this point:

'A rich man, who has five thousand a year, and who has been in the habit of spending the whole of his income, resolves to diminish his expences. He therefore lessens the number of his servants, and is better attended; he buys fewer jewels, and becomes less the object of malignant observations; he gives less splendid dinners, and obtains better friends; in short, instead of spending five thousand a year, he spends only four; and from the end of the first year, he adds a thousand pounds to his capital. The five thousand pounds which compose his income are indeed all expended, but only four unproductively, and the fifth is made to reproduce itself with profit. He lends this sum to a manufacturer, whose concern was in a languishing state. The lacqueys, the jewellers, and the dealers in costly ornaments, find the demand for their services and articles diminished: but those who furnished clothing, eatables, and raw materials for the manufacturer, find the demands on them increased in the same proportion. The encouragement given to industry by the reproductive capital is the same with that which is derived from the portion applied to the enjoyments and pleasures of the individual: but we must not stop short here. In fact, there has been an increase of revenue with the man of wealth, and another with the manufacturer and his workmen. The rich lender has had his revenue increased by fifty pounds; the manufacturer has made a profit of another fifty; and the salaries of the workmen have been greater by three times the same sum; making in the whole two hundred and fifty pounds. The consumptions, then, this year, might have been five thousand two hundred and fifty pounds, instead of five thousand, which they would have been had the rich man expended his whole income upon himself. Besides, the thousand pounds which occasioned the increase of two hundred and fifty pounds still exists, and is capable in every ensuing year of generating the same effects.'

We have been in the habit of lamenting the increase of corruption, and the danger to liberty arising from the funding system: but the author adds that, by rendering wars more frequent and of longer duration, it may be considered as a system more destructive of human life than the discovery of gunpowder. He justly considers it, however, as indispensible in the present situation of the world; and he thinks that, as it can exist only where a representative government prevails, we may

expect that this form will hereafter be introduced into the several states of Europe.

We could with great satisfaction accompany the author through the patriotic, luminous, and convincing discussions which occur towards the close of his work: but we have already reached our limits. In concluding, we would observe that this instructive performance, though not absolutely free from the charge of flattering the existing government, and of dealing out invectives against Great Britain, is much more sparing of both than most of the productions relative to subjects of this kind, which of late have issued from the Parisian press. Until some competent person shall, in our vernacular language, render the service to the doctrines of Dr. A. Smith which is here attempted by a foreigner, we think that a translation and judicious abridgement of the volumes before us would not be ill received by the public. Jo.

ART. XIII. *Traité Medico-Philosophique sur l'Alienation Mentale*, &c. *i. e.* A Medico-Philosophical Treatise on Mental Derangement, or Madness. By PH. PINEL, Professor in the School of Medicine of Paris, &c. With Plates, representing the form of the Skulls or Portraits of the deranged. 8vo. pp. 217. Paris.

IT is much to be lamented that, though there are many physicians of learning and ability in this country, who are solely occupied in attending cases of mental derangement, very few observations have hitherto appeared, which tend either to elucidate the nature of this disease, or to improve the practice adopted in the treatment of it. We should feel much satisfaction in having it in our power to announce a comprehensive practical work on this subject, by one of our own countrymen, whose opportunities may be extensive; and we hope that the example of M. PINEL, in thus bringing forward the results of his experience, may not be altogether lost on them. His feelings seem to be in unison with ours; and he expresses much surprise and disappointment that the English, who have so greatly succeeded in cases of this nature, should be so very sparing of the valuable observations which practice cannot fail to afford. He deserves much credit for the zeal with which he has prosecuted his observations on the various species of insanity; and though he cannot be said to have made any material improvement in the cure of them, or to have effected any striking melioration in their arrangement, he has produced a great number of facts which may be perused with interest and advantage. The moral care of maniacs, that in which the judicious physician has it so much in his power to display his

skill and discernment, and on which the author peculiarly insists, is less dependent on specific rules of universal application, than on the reasonings founded on particular cases. The thinking mind will scarcely suffer any instance to pass over, without drawing from it some share of useful information: but, when the various modifications of derangement are considered, it cannot be expected that many of the cases which are here related can ever admit of a direct application.

M. PINEL founds his claim to experience in the subjects which he now discusses, on the opportunities enjoyed by him during the time of his being physician to the Bicétre, a very extensive lunatic hospital in the neighbourhood of Paris; and on the peculiar bias which always led him to turn his attention to the observation of mental derangement. After an introduction of considerable length, he enters on the consideration of periodic, or intermittent madness, which forms the first section of his work: the second is occupied with the moral treatment of the deranged: the third, with anatomical inquiries into the defects in the conformation of the skulls of the insane: the fourth presents us with the author's division of mental derangement into distinct species: the fifth, with his ideas on the internal police which should be adopted in a lunatic hospital; and the sixth concludes the volume, by giving the principles of medical regimen for the insane.

The author is of opinion, that the irregular mania is better adapted for observation than the regular: but he does not consider the varying nature of the attack as so much depending on the causes whence it may have originated, as on the different constitution of the individuals affected. A robust man, of a lively imagination, is much more likely to be violent and ungovernable in his paroxysms, than one of a more mild and moderate character; while the weak and delicate sometimes fall into an incurable state of imbecility. In an attack of insanity, the moral affections are sometimes materially altered, and the physical and moral strength are frequently much augmented: but the author has had an opportunity of remarking that the unsusceptibility to cold, which has been so often asserted, is by no means universal. In some cases, there seemed to be even a greater than an ordinary susceptibility to the impression of cold; and it always appeared to him particularly necessary to guard against the effects of it at the termination of a paroxysm, when the powers of the system were for the most part extremely reduced. He seems inclined to believe that a paroxysm of insanity is often a salutary operation of nature; and he mentions, as usual precursors, various complaints of the stomach

stomach and bowels, which might make it presumed that those organs were primarily affected in mania. Such symptoms are, however, much less usual here than he represents them to be; and they can scarcely be considered as having a necessary connection with the disease.

In the second section, the writer discusses the moral treatment proper in insanity. He regards it as doing little on this subject to be contented, as the antients were, with laying down general maxims, unless the precise circumstances with respect to the patient were determined, under which those maxims must be applied. He, therefore, deems it better to give examples, in which certain means have been successfully used; with the hope that, from the detail of them, the attentive practitioner may derive some aid. Several curious anecdotes are mentioned in this part of the volume, in illustration of his ideas, and as proofs of the good effects which sometimes arise from powerful means of coercion, from rousing the imagination, from well-timed indulgence, or even from a neat repartee. One of these anecdotes we shall relate:

'A famous watchmaker of Paris, infatuated for a long time with the chimera of perpetual motion, became violently insane, from the overwhelming terror which the storms of the revolution excited. The derangement of his reason was marked with a singular trait. He was persuaded that he had lost his head on the scaffold, and that it was put in a heap with those of many other victims: but that the judges, by a rather too late retraction of their cruel decree, had ordered the heads to be resumed, and to be rejoined to their respective bodies; and he conceived that, by a curious kind of mistake, he had the head of one of his companions placed on his shoulders. He was admitted into the Bicétre, where he was continually complaining of his misfortune, and lamenting the fine teeth and wholesome breath which he had exchanged for those of very different qualities. In a little time, the hopes of discovering the perpetual motion returned; and he was rather encouraged than restrained in his endeavours to effect his object. When he conceived that he had accomplished it, and was in an extasy of joy, the sudden confusion of a failure removed his inclination even to resume the subject. He was still, however, possessed with the idea that his head was not his own: but from this notion he was diverted by a repartee made to him, when he happened to be defending the possibility of the miracle of St. Dennis, who, it is said, was in the habit of walking with his head between his hands, and in that position continually kissing it. "What a fool you are to believe such a story," it was replied, with a burst of laughter; "How could St. Dennis kiss his head? was it with his heels?" This unanswerable and unexpected retort struck and confounded the madman so much, that it prevented him from saying any thing farther on the subject; he again betook himself to business, and entirely regained his intellects.'

The

The author considers religious mania as the most difficult of any species to dispel; yet he thinks that, by a judicious combination of moral and physical means, a cure may generally be effected. For this purpose, he would place the patient in a country situation, encourage him by little rewards in agricultural labours, favour a taste for philosophical pursuits, and sedulously remove from him every object which could recall his former habits of thought.

Professions are represented as differing materially in the susceptibility which they give to derangement of various kinds. The registers of the Bicètre afford many examples of madness in priests and monks; in country people misled by a frightful picture of futurity; in painters, sculptors, and musicians; in versifiers, enraptured by their own productions; and in advocates and attornies: but they have not hitherto shewn any instances of men who are in the habitual exercise of their intellectual faculties as naturalists, philosophers, chemists, and much less geometricians.

It is M. PINEL's opinion that coercion should never be used, except when it is absolutely necessary; and that as much liberty as is consistent with the safety of the patient, and of those around him, should always be allowed.

The result of the author's observations in the third section is opposed to the sentiments of those, who refer a diseased affection of mind to an altered state of the organization. In original madness or idiotism, the head is sometimes different from the ordinary shape: but he conceives that it is impossible for any change in its dimensions to occur, after complete ossification, or after the period beyond which derangement generally shews itself. He does not think that any kind of diseased organization of the contents of the head is ever necessarily connected with madness; yet he allows that, in thirty-six dissections which he himself made, he found appearances similar to those that sometimes shew themselves in epilepsy, apoplexy, fevers, convulsions, &c. The subject is a very obscure one: but it is impossible, from the author's own statement of his observations, to admit the extent of his conclusions. It is not by any means proved that the appearances, which he here mentions to have frequently seen, were not connected with the derangement which existed before death. On the other hand, it is highly probable, on comparing them with various other dissections of a similar kind, that they were; though it is impossible, in the present state of our knowlege, to explain, in any satisfactory way, the mode of connection.

In the 4th section, M. PINEL gives his division of mental derangement, into five distinct species, viz. melancholy, or

delirium, restricted to one object; mania without delirium; mania with delirium; madness (*demence*) or abolition of thought; and idiotism. In the first species, there is no disposition to acts of violence, except such as are produced by a predominant and chimerical idea: the delirium is confined to one object, and in other respects there is a free exercise of all the faculties of the understanding.—*Mania without delirium* is described to be continued, or marked by periodical accessions; to be unaccompanied by any alteration in the functions of the understanding, perception, judgment, imagination, or memory: but to be distinguished by a perversion of the affections, a blind impulse to acts of violence, or a sanguinary fury, without the existence of any prevailing idea or illusion of the imagination to account for them.—*Mania with delirium* is marked by a lively nervous excitement, and by the lesion of one or more of the functions of the understanding, with gay or sad, extravagant or furious emotions.—*Madness* (*demence*) is described as consisting in the rapid, or rather alternate and uninterrupted succession of isolated ideas, and light and unsuitable emotions, inordinate movements, and continual acts of extravagance; a total forgetfulness of previous circumstances; an abolition of the faculty of perceiving objects by the impression made on the senses; an annihilation of judgment; a continual activity, without aim or design; and, in short, in a kind of automatical existence.—The specific character of *Idiotism* is the more or less absolute obliteration of the functions of the understanding, and the affections of the heart; sometimes accompanied with revenge, and the uttering of half articulated sounds; at other times, with taciturnity and loss of speech, from the want of ideas.

With regard to the practical utility of this division, (which, it is to be remarked, by no means entirely belongs to the present author,) it may be doubted to what extent it may reach. The distinctions are far from being constant, even in the same individual; nor are the means of cure always dependent on the particular place which may be allotted in nosology to the combination of existing symptoms.

The proportional numbers affected with each species of derangement, in the last enumeration made by the author at the Bicètre, in 200 persons, were, melancholy 27; maniacal without delirium 15; with delirium 80; mad (*aliénés en demence*) 18; idiotic 60.

The 5th section treats on the internal police and supervision necessary in lunatic hospitals. Here the author strongly recommends a separation of the cases, according to their particular natures, a great degree of regularity in the whole pro-

teedings of the institution, and a minute attention in the inspector to the particular disposition and circumstances of the patient. Coercion is to be employed when necessary, but beating ought never to be admitted. Communication with their friends should be very cautiously allowed, and generally as a reward for good conduct. Mechanical labour, M. PINEL considers as of extreme utility, because affording a healthy and amusing employment, and one which is therefore very likely to assist in producing a cure.

The 6th and last section relates to the medical treatment of the deranged. To this part of the treatise we were disposed to look with more than usual interest, by a wish to be informed, from careful observation, of the effects of different plans of treatment and remedies, under various circumstances: but we have not received the satisfaction which the author's opportunities and professions intitled us to expect:—the effects of bleeding, purging, emetics, the cold and warm bath, and antispasmodics, do not seem to have occupied much of his attention; at least, in speaking of them, he gives the authorities of others rather than his own. The state of the patient with regard to sleep, and the means of obtaining it, seem to have been entirely overlooked. Since he considers the different species of mental derangement as depending on moral rather than physical causes, he is disposed to trust almost entirely to moral treatment in the cure of them. He deems it generally possible to secure the confidence of the patient, to direct his attention from the particular subjects with which it is engrossed, and to adopt a satisfactory mode of convincing him that his conceptions are ill-founded, or that the circumstances which gave him disquiet have at length ceased to exist. The employment of one passion, to remove or neutralize another, he very properly recommends; and he quotes an instance, from Forestus, of the good effects of this practice, in a rich merchant, who fancied himself reduced to beggary by a little loss in business, but was cured of this idea by the religious zeal with which he was inspired for the catholic religion, at the time of the Reformation.

M. PINEL frequently takes occasion to reprehend the employment of remedies in derangement, without some distinct principles to lead to and direct their use. On this subject it may, however, be observed that, when the nature of a disease is not precisely known, nor the method of removing it unequivocally established, the practitioner is justified in attending to distant analogies in his endeavours to produce a cure. We are yet completely in the dark concerning the nature of mind, and the connection which it has with the body; and we know not

what particular state of the one is necessarily connected with a certain condition of the other. Till this point is ascertained, (and there seems to be at present but very little prospect of settling it,) we can scarcely hope to become acquainted with the treatment of the various modifications of derangement, founded on unerring principles. The particular states of the brain, which have been discovered in maniacs by dissection, afford a satisfactory proof that, whatever may have been the proximate cause of the alienation of reason, the effects of it are not confined to the immaterial parts of the system. The peculiar relation which the local affection bears to the symptoms of the disease, it will of course be extremely difficult to discover; because the opportunity of dissection seldom if ever occurs at a very early period: but, if this point were attained, still the difficulties of practice would by no means be removed.

Yell.

Art. XIV. *Histoire de la Guerre Civile en France*, &c. *i. e.* A History of the Civil War in France, and of the Misfortunes which it occasioned; from the Formation of the States General in 1789, to the 18th Brumaire of the Year VIII. (1799): With authentic Details of the Pillage and burning of the Seats of the Nobility; the Troubles of Corsica; those of the Comtat, &c. Including Anecdotes of the principal Personages who took a Part in the Revolution, &c. &c. By the Author of the History of the Reign of Louis XVI. 3 Vols. 8vo. Paris, 1803. Imported by De Boffe. Price 18s. sewed.

We have more than once had occasion to express our opinion of M. Soulavie *, author of the present publication; the perusal of which has not induced us in any degree to change it. That enmity to the late Royal Family, that medley of censure and praise on the several factions which have successively had the ascendancy in France, that subserviency to the ruling power, those symptoms of bad faith, and those inaccuracies and defects of composition, which marked his former performances, are here equally conspicuous. A collection of the minor events of the revolution, which were not of importance enough to enter into a general history of that event, written by a person less to be suspected, who possessed more discrimination, and sounder judgment, would have been a present which would have been valued by those who undergo the painful task of making themselves acquainted with the transactions of the evil times on which they have been thrown. Even this performance, with all the faults which we have imputed

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* See Rev. Vol. xxxviii. N. S. &c.

to

to it, and to which we may add, that of abounding in common-place remarks, will be found considerably interesting to those who have noticed the course of the revolution, and will cause them to lament that the ingenuousness, accuracy, and caution of the writer have not been equal to his industry. They will, however, as they proceed in turning over its pages, be conscious of the unpleasant sensation which the mind experiences when it dwells on narratives of doubtful credit: for we conceive that those which form these volumes are worthy of reliance only when corroborated by other testimony, when supported by internal evidence, or where there seems to be no temptation to misrepresent or to indulge in fiction.

Those who have studied the convulsions which have agitated France will be able to call to mind the troubles at Nancy. The present author accuses the Marquis *de Bouille* of acting in that affair on a plan of deeply laid and widely extended treachery; viz. that of leading the national guards to be butchered, and of obtaining a fresh regular force to be placed under his command by the national assembly; with which, on the reduction of Nancy, he designed to march against Paris, and dissolve that very assembly which had reposed its confidence in him. We suspect that M. SOULAVIE learnt all this from the same source which revealed to him so many secrets relating to the courts of the two last reigning monarchs of France. He is also the defender of the recall of the Swiss regiment of Chateau-vieux, and of the indecent scenes which accompanied it. The respectable *Gouvion* protested in the legislative assembly against the honours paid to this mutinous corps; he stated that his brother had been slaughtered in attempting to quell its insurrection; and when his remonstrances were disregarded, he refused to remain any longer a member of that body. The conduct of this esteemed person will have greater weight with most readers in determining the real merits of this transaction, than the loose pages of the present writer. We have never before seen this recall represented in any other light, than as an act of hostility against the court. It was one of the first of that series of anarchical measures, which the weak Girondists, instigated by the creatures of *Robespierre*, introduced at first with the view of terrifying, and at length of subverting the throne, and which ultimately proved not less fatal to themselves. In some of the narratives, we find this Proteus author a high monarchist, and in others an austere Romanist; in that of the affair of Nancy, we recognize the Jacobin Envoy at Geneva, under the committee of public safety.

Numbers of the anecdotes here related prove, that many of the partizans of the antient regime were actuated by a temper and disposition not less ferocious and sanguinary than those which excited its opponents to such unparalleled excesses. Displays of them were to be seen on each side, sufficient to prepare the mind for much of the horror which attended the struggle as it advanced; and which illustrate the nature and consequences of sudden and violent revolutions. In the early stages of the troubles, the popular party sometimes shewed much patience and forbearance, but much oftener ran into the most disgusting excesses. The populace never rose without shedding blood and *parading heads*. This ferocity was not confined to the capital and large cities, but took place even in small towns and villages; and this thirst for blood appears to be a dreadful feature in the French national character.

It rests on better authority than that of M. SOULAVIE, that the court, which had called together the Tiers-Etât, studied to pass a number of vexatious though slight insults on that body, as it were on purpose to irritate it. This body, with its president at its head, was frequently made to wait long in the anti-chambers, before it was introduced to the king. A package of books directed to the Tiers-Etât was detained, while one addressed to the Noblesse, and another to the Duke of Orleans, were suffered to pass. The court assumed to itself a controul in deciding who should and who should not attend its sittings. One day a proclamation by the heralds at arms informed it, that the king would make use of its hall for the purpose of holding a royal sitting; when its members were refused admittance into it, under the plea that workmen were engaged in making alterations in it for the reception of the king: which led to the celebrated meeting at the Tennis Court, where was taken the memorable oath which caused the revolution. On the day of the royal sitting, all the apparatus of arbitrary power was displayed; all the avenues to the hall were barricadoed, and lined with troops. The guards were mounted, and placed in battle array, with naked swords. In the space of an eighth of a league, there were four thousand armed men; numerous patroles were continually taking their rounds to prevent any groupes being formed; and they even went so far as to separate the deputies who walked to the hall in parties. As the clock struck nine, the deputies presented themselves; the privileged orders had been admitted at the great door, while the commons entered by a small door on the opposite side; owing to the narrowness of which, many were crowded most unpleasantly in the vestibule, and great

numbers

numbers were kept out, exposed to the rain for nearly an hour. Who can wonder at the disasters that befell a country under a government which assembled the representatives of the nation to beg favours of them, and which treated them at their meeting in this rude and harsh way? It is true that this ill-usage is not of a violent nature, but it is not on that account less felt, nor was it less fraught with ill consequences to its authors. All parts of the hall, except those occupied by the court and the states, were filled with soldiers; and the king was advised to make use of very arbitrary language on the occasion. He broke up the meeting, and commanded each of the orders to disperse, and not to assemble till the morrow. The commons, having been irritated, dared to disobey the royal mandate; and the ministers, afraid of the people of Paris, chose not to enforce compliance by violence, and thus compromised the royal authority.

If the court was ill-advised in its proceedings towards the assemblies, the latter were guilty of sins far more heinous and pernicious against the nation: since they sacrificed the interests of the public to promote their own, and to indulge in mutual hatred. The constituent assembly was divided into the right and left sides; the former occupied by the partizans of the old order of things, and the latter by the revolutionists. These designations took their rise from the places in the hall with regard to the president's seat, severally filled by the parties. Their enemies termed the popular laws the *Breton decrees*, and stigmatized the deputies of the same side as *enragés* and *incendiaries*. These denominated themselves the *friends of the people*, or the impartial, and designated their enemies as *aristocrats*, the *green faction*, green being the livery of the Comte *d'Artois*; also the *blacks*, there being many clergy of the party; and by way of contrast, they called themselves *whites*, and those who fluctuated between both, *greys*. As coarseness and vulgarity prevailed more in the convention, that assembly had besides its Girondists, federalists, &c. &c. its *mountain*, its *plain*, and its *marsh*; its *enragés*, its *modérés*, and its *toads*.

An address read to the constituent assembly happening to contain some expressions displeasing to the royalist deputies, numbers of them rushed to the tribune, and one held his fist up to the orator's face. The Duke *de la Rochefoucauld* appearing one day in the tribune in order to speak, the Abbé *Maury* pushed him down from it by the neck and shoulders. Sometimes three or four together would seize the tribune, and harangue at the same time. There were five epochs in the constituent assembly, distinguished by disgraceful scenes; viz. the discussions respecting the freedom of worship; the state

of the colonies; the affair of Avignon, that of Corsica, and the question of the *Veto.*

The author descends to the very minutiæ of the history of the royal family, while confined in the Temple; and the relation, we have no doubt, is in the main authentic. The behaviour of the king is throughout dignified. He stands on elevated ground, displays all the courage and resignation of a confessor, all the equanimity of a philosopher, and the gentle and easy manners of the polished Courtier. Until his barbarous enemies tore from him those who were most dear to him, he divided his time between the exercises of religion, reading, the instruction of his son, innocent games, and converse with his family. Towards the end of November, he applied to the Council of the Commune for the following books for his own use, and that of his son:—*Append. de Diis; A Patre Juvenco; Aurelius Victor; Cæsaris Commentaria; Cornelius Nepos; Dictionarium Universale; Eutropius;* the Fables of *Fontaine*, with plates; *Florus; Thomond*'s Latin Grammar; *Vailly*'s Grammar; *Gautruche*'s Art of Poetry; *Horatius; Quadraginta viri*, &c.; *Justinus; Burette*'s Ovid's Metamorphoses; *Phædrus*'s Fables; *Quintus Curtius;* Remarks on the French Language by *Olivet; Sallustius; Suetonius*, ed. Elz.; *Tacitus; Telemachus; Terentius; Titus Livius; Rollin* on Study; *Mesengui*'s Lives of the Saints; *Velleius Paterculus; Virgilius;* and the same with notes, and translated into French by *Burette.* The price, the editions, and the form of each book were set down. The proposal met with objections in the council; one said that Louis's time to live would not be long enough to read all these books; others remarked that many of the books inculcated erroneous political principles, and that some of them (such as Ovid) were immoral, while *Paterculus* contained schemes of a counter-revolution. It was observed at the time that, had *Ovid* been at this notable discussion, he might have exclaimed,

"*Barbarus hic ego sum, quia non intelligor ulli.*"

While in prison, the king appeared as if seized by an extraordinary passion for study. He calculated on the evening preceding his death, that in little more than five months he had read 257 volumes. He preferred at this time Latin to French authors; and he never went to rest without having first read a portion of *Tacitus, Livy, Seneca, Horace, Virgil*, or *Terence.* The French works which he principally read were travels.

As the Duke *de la Rochefoucauld* was known to several persons of distinction in this country, and as the account here given of his unhappy fate is the only detailed one which has

occurred to us, we shall insert the substance of it.—Speaking of the massacres of September, the author says:

'At this time, and by the hands of the same assassins, perished the estimable *Rochefoucauld*, late a duke and peer of France, ex-constituent, and ex president of the department of Paris, president of the Academy of Forty, whose eloquence in the tribune had been so often luminous, and so often useful. The commune of Paris had issued an order to arrest him as early as the 16th of August: but, being apprized of it, he concealed himself in a sequestered part of one of his estates. Believing the storm to have blown over, he had the imprudence to join his family at Forges, in the department of the lower Seine: of which being informed, the municipality of Paris, usurping a jurisdiction over all the departments, on the 28th of August sent an order to one *Bouvard*, an inhabitant of Vernon, to arrest him. *Bouvard* did not execute it till the 2d of September, and on the next day obliged the duke and his family to quit their habitation, under the pretence of conducting them to Gournai. This man's mode of proceeding made it evident, that he had instructions to contrive that his illustrious prisoner should be massacred. When he had conducted his charge as far as Gisors, the populace of that place, and a battalion which happened to be there, demanded loudly that M. *de la Rochefoucauld* should be shewn to them. The result but too clearly proved what their object was in this request. *Bouvard*, without waiting for the crowd to disperse, gave directions for departure, in order as he said that they might reach Vernon: but they had scarcely set out when he desired M. *de la Rochefoucauld* to quit the carriage, and to walk before the horses. He had taken only a few steps, when he received blows from swords and pikes which deprived him of existence, in the presence of his affectionate wife and venerable mother. This scene took place while the constituted authorities of Gisors, the national guard of that place, a detachment of the gendarmerie of the department, and another of that of Paris, were looking on. When the latter were reproached with not having protected him, they replied: "It was necessary that he should perish: it was sufficient that his family did not share his fate."

This tragedy took place on the 4th of September 1792, in the afternoon.

'So exemplary had been the life of this excellent man, that the breath of calumny never dared to attack his private character. All who knew him agree that there did not live a man of more firm integrity, and of more pure intentions. He shared, however, in the fatal mistakes committed by the popular party of the constituent assembly; and though his errors, and those of the many persons of worth who acted with him, were undoubtedly errors of the judgment, wholly involuntary, yet to what dreadful consequences did they lead! and how tragically were they expiated by those who fell into them! Mankind in future will need no new lessons, to teach them to pause before they venture on political changes. If M. *de la Rochefoucauld* attacked too vehemently the antient regime, he was a zealous, steady, and

and undaunted supporter of the constitutional throne. Though he never frequented the court in the days of its prosperity, he was often seen with the king when his situation became perilous. No doubt he perceived his error when it was too late, and did all that he could to repair it. He it was who advised the measure of *Lafayette*'s addressing the legislative assembly: which did harm, but which was well meant. As president of the department, he suspended *Petion* from being mayor, for the neglect of his duty in not protecting the royal family and the palace from the mob on the 20th of June. In his reply to the circular letter of *Roland* when Minister, he clearly pointed out the ill effects of the persecution for religion which the government had then just commenced, and denounced the parent society of the Jacobins. He forcibly dwelt on the evils arising from the lawless proceedings and the usurpations of that body. A power so mighty, subject to no responsibility, bidding defiance to government, and braving the laws, had (he observed) nothing that resembled it in the history of any state. These were offences sufficient to induce Jacobin vengeance to lay waste whole provinces. It dared not to bring to trial this virtuous man, but had recourse to the dastardly mode of assassination, by means of obscure and irresponsible instruments.'

The author enters into a minute detail of the treatment of *La Fayette* and that of his two friends, as well as that of the Commissaries of the Convention betrayed by *Dumouriez*, while confined in the prisons of Austria. The particulars are highly curious, and will remain an everlasting reproach to the advisers of Francis II. With his usual want of accuracy, M. Soulavie compliments England with having exerted its good offices at the court of Vienna, in favour of the interesting prisoners at Olmutz: whereas the British cabinet of that day stood so much on etiquette, were so tremblingly alive to a sense of the independence of other governments, and so averse to officious interference in the concerns of other states, that the voice of humanity, the claims of justice, and the reputation of the coalition, could not induce them to instruct their minister at the Imperial court to drop the least hint in favour of the unhappy persons who were languishing in its loathsome dungeons.

We could add many more interesting extracts from these volumes, but we refrain because we are not satisfied of their correctness. The work certainly has no pretensions to be denominated a history. It is a mere collection of narratives of the horrors and extraordinary events of the revolution, in which no method is observed; and it abounds in the most inexcusable inaccuracies. The reflections are all either dull or puerile, or perverse; and some of them are of such a nature as must call forth the indignation of every upright mind, and place the character of the author in the most unfavourable light.

Jo.

Art.

ART. XV. *Medecine expectante; i. e.* Expectant Medicine. By C. VITET, Professor of Medicine. 6 Vols. 8vo. pp about 600 in each. Lyons, 1803. Imported by De Boffe. Price 2l. 5s. sewed.

OUR readers may feel some difficulty in understanding the precise meaning of the title of this publication, from there being no term in the medical language of this country which corresponds with the word *expectante*.—This expression is meant to be understood in opposition to *agissante*, and is thus connected with certain ideas on the mode of conducting the treatment of diseases, which principally consist in the supposition that they are salutary efforts of nature, which it is improper (except in particular cases) to interrupt. The explanation of the terms *expectante* and *agissante* is only incidentally given by the author, in his introduction to the chapter on Fevers: but, though he seems to consider them as of sufficient notoriety among French practitioners, it may not be superfluous, for the sake of our brethren in England, to annex a few of the explanatory observations which occur in this part of his work, and which apply in a greater or less degree to every part of his system. Fever he describes as originating from a certain morbific matter, to the concoction and expulsion of which the efforts of nature are spontaneously directed, and thus a certain train of symptoms is produced. These efforts should be the constant objects of attention, since their nature and force must determine how far we are to attempt any thing towards a cure of the disease by medicine, and what the particular objects are which we must keep in view, if we deem it necessary to employ it. In this conduct, we are informed, *expectant medicine* consists; the more particular objects of which are,

'To wait on and obey nature, as long as her efforts are neither too violent nor too weak for the concoction and expulsion of the febrile matter, and as long as they do not wander from their proper routes; to observe attentively, from the attack of fever to convalescence, all the movements of nature, which tend to disturb the concoction and crisis; to combat these efforts by means incapable of annoying the concoction and crisis; to destroy the obstacles which oppress her efforts, without producing any injurious changes; to restore nature to her proper direction, that she may pursue her operations without endangering the concoction or crisis; not to wait till the last days of the fever, to prevent the injurious effects of the wanderings, or immoderate or ineffectual efforts of nature: but in consequence to put every thing in practice in order properly to dispose the efforts and the direction of nature, rather during the growth of fever, that in its vigour and declension; to attend particularly to the distinction of the signs, which announce and confirm the concoction, the critical day, and the kind of crisis, for the purpose of preserving the most perfect repose, during

during the time when the efforts of nature are sufficient; to guard against the acceleration of the concoction and crisis before the time required by nature; not to leave to her the care of surmounting the fever, while art knows a specific for it, but to be contented with chusing the favourable moment for applying it with success; to turn away with force and activity the fatal efforts of nature, and rather to try a doubtful remedy, while there remains a faint hope of effecting a cure, than abandon the patient to inevitable death. *Expectant medicine*, then, does not consist in committing this fever entirely to nature; in observing and contemplating her efforts, however injurious they may be to the present and the future; in abstaining absolutely from the use of all relief, and in not disturbing her wanderings, however imminent the dangers may be which present themselves. *Expectant medecine*, thus considered, would often become as injurious to humanity as the empiricism decorated by certain practitioners with the name of active medicine (*medecine agissante*). This empiricism, which is always in opposition to expectant medicine, does not wish to acknowlege nature; it has no inclination to limit, to obey, or to follow her; it affects to act of itself alone, and attributes to the power of remedies all the cures which nature performs; it does not recognize the efforts which she often makes, to get rid both of the medicine which has been employed, and of the morbific matter, when the latter has arrived at its last degree of concoction. It regards as chimerical the divisions of fevers, the symptoms which distinguish them, the phænomena which announce and characterise every species of crisis; it does not admit the existence of days indicative of a crisis, of days at which the concoction is completed, or of days actually critical; and in course it disdains to foresee a critical nasal hæmorrhage, a critical excretion by the nose, a critical expectoration, a critical pituitous spitting, a critical sweat, critical evacuations by stool or urine, and critical depositions. It does not listen to the action of the mind on the body, nor of the body on the mind; and therefore it acts at every time, and in every circumstance, without attending to the obstacles which nature, and a simple or complicated fever may present.—We must not be surprized, then, that it absolutely mistakes the signs which announce the different species of crisis; while *expectant medicine* particularly attends to deriving those appearances from the state of the mind, the senses, the eyes, the countenance, the tongue, the integuments, the various excretions, the respiration, and the pulse.'

From this abstract, an idea may be formed of the two kinds of practice described in this work; and of the mode of reasoning on one of the most important classes of diseases, which the author employs to exemplify them. Such a mode has long been obsolete in this country, and has yielded to a judicious combination of the principles of the *medecine expectante* and *agissante*; which, while it does not refuse to nature those pretensions to which she justly has a claim, is far from supporting such as are hypothetical or ill founded, and which are connected

nected with speculative ideas on the nature of diseases.—The succeeding parts of the introductory chapter on Fever, from which we have made the above extracts, give an exemplification of the circumstances which are to direct the prognosis in fever. The respiration and the pulse are particularly watched for this purpose: but the very numerous divisions, and consequently minute distinctions, which are here made, would tend to bewilder rather than assist the practitioner in his judgment. The pulse of irritation, concoction, and crisis, are the three leading divisions from which the others are made; and of these the last obtains the greatest share of attention. The critical pulse is supposed to precede and announce critical evacuations. It is divided into the superior or regular, which indicates depositions above the diaphragm; and the inferior or irregular, marking those which take place below that organ. The former is subdivided into the nasal, guttural, and pectoral pulse, according as the deposition is to take place on any of the organs from which those terms are derived; and the latter, for the same reason, into the stomachic, bilious, intestinal, urinary, hæmorrhoidal, and uterine. It might be said, with much appearance of truth, that, in the adoption of this subtile division, the author was little directed by practical experience: but it must be remarked that he does not appear altogether to sanction it, as he admits that the distinctions laid down would often be insufficient to form a well-founded prognosis.

The very great extent of this work necessarily precludes the practicability of giving more than a general notice concerning its contents. It bears the marks of considerable industry, and shews the author to be possessed of an accurate acquaintance with the symptomotology of diseases, and the divisions into which they have been arranged in different systems of nosology. If we form an idea of his method of practice from the principles laid down by him, we should expect it to be in general timid and inert; and therefore we are not disappointed to find that he disapproves many of those active medicines, which the experience of physicians of this country has taught them to employ with advantage. In his treatment, however, of many of the diseases which we have had occasion to consider in these volumes, he avails himself of the principal means which the most judicious practitioners have found it expedient to recommend. The particular attention which the author thinks it proper to give to the species of diseases, individually, introduces much repetition, and a prolixity which it would have been better to have avoided. In examining those species, he first enumerates their symptoms, then the habits most disposed to them, and afterward their remote causes, and method of cure. The whole system of

diseases

diseases is divided into the eight following classes, which he treats in order, viz. Febrile diseases; inflammatory; painful; and convulsive; diseases of debility; diseases accompanied with evacuations of any kind; such as are attended with retentions; and diseases of the mind.

No specific references are given for peculiar symptoms, nor for the success attending certain modes of practice: but with the title of each genus or species, are inserted useful references to the most respectable authors who have treated on them. M. VITET seems in general to give his ideas on the nature and cure of diseases in a dogmatical form, without adverting to his own particular experience or observation. This in course makes it difficult to distinguish how far he speaks from a personal knowlege of the subject, or from the information which he has derived from the writings of others; and therefore we have little opportunity of forming a comparative judgment respecting the efficacy of different modes of practice. The experience of thirty years which he boasts of having devoted, with Citizens *Gilibert* and *Petetin*, to the cultivation of *medecine expectante*, is stated to have confirmed him, more and more, in the efficacy attending the system which he has pursued in his treatment of diseases. So long and unwearied an attention to the interests of his profession is highly creditable, and would perhaps convey to the English practitioner the idea of having been pursued with more judgment and success, if the author did not so often shew himself decidedly averse to many vigorous but efficacious modes of practice, which he knows (or at least suspects) that his opponents, the *medecins agissants*, would have been *guilty* of employing.

The last volume contains a methodical exposition, by the author and his son, of the character, virtues, preparation, and administration, of those medicines which are employed for the most part by the *active*, but very little by the *expectant* Physician; together with the diseases in which they are indicated. Yell.

ART. XVI. *Cours de Physique celeste*, &c.; *i. e.* Course of Celestial Physics, or Lessons on the Exposition of the System of the World, read at the Polytechnic School, in the Year 10. By J. H. HASSENFRATZ. 8vo. Paris. 1803. Imported by De Boffe. Price 9s. sewed.

THE nature of this work is elementary, being specially designed for the use of the students of the Polytechnic school, and calculated to be useful to all students in astronomy, as preparatory to the arduous undertaking of reading the profound treatises of *Laplace* on the Exposition of the System of the World,

World, and on Celestial Mechanics. The plan is commendable; since, of the few who have read, or pretended to have read, those publications, none perhaps will deny that they require matter both preparatory and explanatory. M. LAPLACE has also omitted all figures and diagrams: he might, perhaps, regard plates as mere luxuries: but to Englishmen they are absolute necessaries; and indeed the astronomical tyros of his own country cannot dispense with them: a fact which M. HASSENFRATZ acknowleges, and alleges as one of the reasons for the appearance of his volume.

The author has here introduced 29 plates; and if what we have heard concerning the neglect in France of the Greek and Latin languages be true, he has not less consulted the wants of his students, by subjoining, in the form of notes, those Greek words (and their translation) from which most of the terms in Astronomy are taken.

Of a publication like the present, we must be contented to give a general character, since we cannot enter into a particular examination of it: though we could extract many instances of clear reasoning and of ingenious and happy explanation: but when we say that the author has perspicuously treated a difficult subject in its arrangements and illustrations, we give him that sort of commendation to which alone he can be properly intitled, and ought reasonably to expect. If, however, the substance and materials of his composition were before him in great abundance, he must be allowed to have neatly and dexterously disposed and connected them.

M. HASSENFRATZ wished to elucidate, and to render more intelligible, *Laplace*'s Exposition of the System of the World. By wealth drawn from that treatise, he has enriched his own: he has borrowed light from that which he wished to illuminate; and, which is no inconsiderable recommendation, the present course was submitted (as we are informed in the preface) to the inspection and correcting judgment of that great mathematician.

This volume treats on both plane and physical Astronomy: it contains the explanation of the ordinary phænomena of the heavens, with the causes of phænomena from the theory of Gravitation, and the results of calculation: but it does not enter very deeply into these matters, because the size of the book is small, and its object was limited to the instruction of students in the Elements of Astronomy. We have to regret that it is not better printed, and is not more free from typographical errors.

R.W.

ART.

ART. XVII. *Renseignemens sur les Evènemens*, &c.; *i. e.* Information concerning the Events which took place in Swisserland, in September and October 1802. 12mo. Pamphlet. De Boffe.

WE have here a circumstantial account of the attempt made by the brave Swiss, to overturn the domination of an odious faction. While success every where crowned the efforts of patriotism, the mandate of a foreign power and the invasion of its hordes, paralyzed the undertaking, and riveted the chains of the brave descendants of William Tell. This intrepid people, seeing that resistance was vain,—there being no proportion between the forces who were to decide the dispute,—wisely and humanely abstained from useless bloodshed; and the diet of Schwitz disbanded its forces, and dissolved itself, protesting solemnly against the violence offered to an independent nation, and referring its rights to God and posterity.

All the promises made by the agents of the invading power, we are told, remain unfulfilled. The Helvetic government, says the writer, has indeed resumed its functions, but it has undergone no purification, and the most detested individuals continue to share in it. The deputies appointed by each state have been refused admittance into the consulta, while this consulta is composed of a swarm of Jacobins and traitors: though their opinion was not likely to be much regarded in framing the subsequent constitution, dictated by the First Consul. We are, he continues, replunged in the abyss from which we were about to have delivered ourselves; and new calamities await unfortunate Swisserland, until the time shall arrive, when favourable circumstances may permit us to resume our imprescriptible rights.

Will the warfare, which this country has now, alas! recommenced, produce any relief to these deserving but oppressed mountaineers?

Jo.

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